R E P O R T   R E S U M E S

ED 010 602   24

EFFECT OF A SPECIAL PROGRAM IN LITERATURE ON THE VOCABULARY AND READING ACHIEVEMENT OF SECOND GRADE CHILDREN IN SPECIAL SERVICE SCHOOLS.

BY- COHEN, DOROTHY H.
NEW YORK UNIV., N.Y., SCH. OF EDUCATION

REPORT NUMBER CRP-S-254   PUB DATE   66
REPORT NUMBER BR-5-8034
EDRS PRICE MF-$0.27 HC-$7.52   188P.

DESCRIPTORS- *VOCABULARY DEVELOPMENT, *READING ACHIEVEMENT, GRADE 2, *STORY READING, *LITERATURE PROGRAMS, *COMPREHENSION DEVELOPMENT, READING PROGRAMS, CURRICULUM ENRICHMENT, DISADVANTAGED YOUTH, CHILD DEVELOPMENT, SPECIAL SCHOOLS, TEACHER IMPROVEMENT, TEACHING METHODS, NEW YORK CITY, NEW YORK, FREE ASSOCIATION VOCABULARY TEST, METROPOLITAN READING ACHIEVEMENT TEST

A SPECIAL PROGRAM OF LITERATURE AND ACCOMPANYING ACTIVITIES WAS INTRODUCED INTO THE CURRICULUM OF DISADVANTAGED SECOND-GRADE CHILDREN TO CAUSE SIGNIFICANT MEASURABLE IMPROVEMENT IN THE VOCABULARY AND READING ACHIEVEMENT OF THESE CHILDREN. SEVEN SPECIAL-SERVICE ELEMENTARY SCHOOLS IN NEW YORK CITY PROVIDED THE RESEARCH SETTING. AT THE BEGINNING OF THE RESEARCH, 580 SECOND-GRADE CHILDREN WERE ADMINISTERED THE FREE ASSOCIATION VOCABULARY TEST AND THE METROPOLITAN READING ACHIEVEMENT TEST, UPPER PRIMARY, GRADE 2. EXPERIMENTAL AND CONTROL CLASSES WERE SET UP ON A RANDOM BASIS. FOR THE EXPERIMENTAL CLASSES, TEACHERS WERE ASKED TO READ A STORY EVERY DAY OF THE SCHOOL YEAR FROM SPECIALLY SELECTED BOOKS. THESE STORIES WERE INTRODUCED IN AN ORDER OF INCREASING DIFFICULTY AND WERE EACH ACCOMPANIED BY FOLLOWUP ACTIVITIES DESIGNED TO ENHANCE COMPREHENSION. STORIES READ TO THE CONTROL CLASSES WERE INTRODUCED ONLY AS AN OCCASIONAL TREAT AND FOLLOWED NO SPECIFIED PATTERN. POST-TESTS ADMINISTERED AT THE END OF THE ACADEMIC YEAR YIELDED SUITABLE DATA FROM 285 PUPILS. ANALYSES OF COVARIANCE LED TO THE CONCLUSION THAT ORAL LANGUAGE CORRELATES WITH READING, AND BOTH CAN BE SIGNIFICANTLY IMPROVED BY REGULAR EXPOSURE TO STORIES READ ALOUD. ONE OF THE IMPLICATIONS OF THE RESEARCH WAS THAT TEACHERS, ESPECIALLY TEACHERS OF THE DISADVANTAGED, MUST BE FAMILIAR WITH CHILDREN'S LITERATURE SUITABLE TO THE AGE AND STAGE OF DEVELOPMENT OF THE CHILDREN THEY ARE TEACHING. (JH)

U. S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
Office of Education
This document has been reproduced exactly as received from the person or organization originating it. Points of view or opinions stated do not necessarily represent official Office of Education position or policy.

Sponsoring Committee: Professor Alvina T. Burrows, Chairman
Professor David Malikin
Professor Patricia Sexton

EFFECT OF A SPECIAL PROGRAM IN LITERATURE ON THE VOCABULARY AND READING ACHIEVEMENT OF SECOND GRADE CHILDREN IN SPECIAL SERVICE SCHOOLS

Dorothy H. Cohen

ED010602

Submitted in partial fulfillment of the requirements
for the degree of Doctor of Philosophy in the School
of Education of New York University

1966

EFFECT OF A SPECIAL PROGRAM IN LITERATURE ON THE VOCABULARY AND READING ACHIEVEMENT OF SECOND GRADE CHILDREN IN SPECIAL SERVICE SCHOOLS

COPYRIGHT BY

DOROTHY H. COHEN

1966

TABLE OF CONTENTS

CHAPTER PAGE

I STATEMENT OF THE PROBLEM 1

Need for the Study 1
The Problem 4
Subordinate Problems 4
Delimitations 5
Definitions of Terms 5
Basic Assumptions 8
Hypothesis 9

II NATURE AND SCOPE OF THE PROBLEM 10

Relation of Reading to Language and Experience 10
Nature of Language Learning 14
Theories of Learning Affect Curriculum 17
Use of Literature to Facilitate Language Learning 23

III RELATED STUDIES 28

Relation Between Socio-Economic Class and School Learning 28
Relation Between Socio-Economic Class and Verbal Power 31
Relation Between Language Power and Reading Readiness 37
The Importance of Meaning in Reading 44
Vocabulary Analyses and Tabulation 51
Tabulation Procedures 58

IV METHODOLOGY 63

Procedure and Collection of Data 63
Setting 63
Population 64
Research Personnel 66
Establishing the Experimental and Control Groups 66

CHAPTER PAGE

Materials and Methods for the Special Program 71
The Books 71
Criteria for Selection of Books to be Read in Experimental Classes 71
Application of Criteria 73
Teacher Preparation 74

Administration and Scoring of Tests 78
Free Association Vocabulary Test 78
Metropolitan Reading Achievement Test 83

Treatment of the Data 84
Free Association Vocabulary Test 84
Metropolitan Reading Achievement Test 85

Summary 86

V RESULTS 88

Free Association Vocabulary Test 88
Metropolitan Reading Achievement Test 92

Summary 102

VI DISCUSSION AND IMPLICATIONS 106

BIBLIOGRAPHY 148

APPENDIX I. LIST OF 100 TITLES AND VALIDATIONS 157

APPENDIX II. FINAL LIST OF FIFTY BOOKS 163

APPENDIX III. MANUAL OF ACCOMPANYING ACTIVITIES 167

APPENDIX IV. STORY READING CALENDAR 176

APPENDIX V. FREE ASSOCIATION VOCABULARY TEST BOOKLET 177

APPENDIX VI. DIRECTIONS TO TESTERS FOR PREPARING THE ROOM FOR FREE ASSOCIATION VOCABULARY TEST 178

APPENDIX VII. SAMPLE PAGE FROM RINSLAND VOCABULARY STUDY 179

LIST OF TABLES

TABLE		PAGE
I	Population Distribution by Ethnic and Racial Composition	65
II	Years of Experience of Participating Teachers	66
III	Classes in Experimental and Control Groups from which Data were Obtained, Showing Transiency, Position on the Grade, and Number of Children in each Class	70
IV	Adjusted Criterion Means of Experimental and Control Groups on Free Association Vocabulary Test, Quantitative Count	89
V	Analysis of Covariance of Experimental and Control Groups on Free Association Vocabulary Test, Quantitative Count: Total Group, Low, Middle and High Classes	90
VI	Adjusted Criterion Means of Experimental and Control Groups on Free Association Vocabulary Test, Qualitative Count	91
VII	Analysis of Covariance of Experimental and Control Groups on Free Association Vocabulary Test, Qualitative Count: Total Group, Low, Middle and High Classes	91
VIII	Adjusted Criterion Means of Experimental and Control Groups on Metropolitan Reading Achievement Test, Word Knowledge: Total Group, Low, Middle and High Classes	94
IX	Analysis of Covariance of Experimental and Control Groups on Metropolitan Reading Achievement Test, Word Knowledge: Total Group, Low, Middle and High Classes	94
X	Adjusted Criterion Means of Experimental and Control Groups on Metropolitan Reading Achievement Test, Word Discrimination	95

TABLE		PAGE
XI	Analysis of Covariance of Experimental and Control Groups on Metropolitan Reading Achievement Test, Word Discrimination: Total Group, Low, Middle and High Classes	95
XII	Adjusted Criterion Means of Experimental and Control Groups on Metropolitan Reading Achievement Test, Reading Comprehension	96
XIII	Analysis of Covariance of Experimental and Control Groups on Metropolitan Reading Achievement Test, Reading Comprehension: Total Group, Low, Middle and High Classes	96
XIV	Gain in Months on Metropolitan Reading Achievement Test, Low Classes	99
XV	Gain in Months on Metropolitan Reading Achievement Test, Middle Classes	99
XVI	Gain in Months on Metropolitan Reading Achievement Test, High Classes	99
XVII	Correlation Matrix of Five Variables, Vocabulary (Quantitative and Qualitative) Word Knowledge, Word Discrimination, Reading Comprehension	100
XVIII	Correlation Between Position on the Grade, Low, Middle, High, and Vocabulary (Quantitative and Qualitative) Word Knowledge, Word Discrimination, and Reading Comprehension.	101
XIX	Number of Words in Free Association Vocabulary of Experimental Group, Pre and Post Test, that Fall into Rinsland Frequency Categories	109
XX	Number of Words in Free Association Vocabulary of Control Group, Pre and Post Test, that Fall into Rinsland Frequency Categories	110
XXI	Average Increase of Experimental and Control Groups in Each Rinsland Category of Frequency	111
XXII	Adjusted Criterion Means of Low, Middle and High Groups on Five Variables	118
XXIII	Range of Scores on Metropolitan Reading Achievement Test for Low, Middle and High Groups, Experimental and Control	131

CHAPTER I

STATEMENT OF THE PROBLEM

Need for the Study

It is important for social and economic as well as humanitarian reasons that we break the deadlock in education -- namely, the failure to tap adequately the reservoirs of intellectual energy among the least favored of our population. This failure is eloquently dramatized in the inadequate reading achievement so often found among the children of the poor.

The concern with salvaging the learning potential of disadvantaged children has grown acute in recent years because the increasing technology of our twentieth century is eliminating the place in society once held by the unskilled, untrained and uneducated worker. Education in the United States has up to now been a road to economic upgrading and higher status; it is now becoming a desperately needed asset for sheer survival. Nor can we fail to note that in a society where upward mobility is associated with education, self-respect is early associated with school success. Twentieth century American children cannot afford failure at school, and educators must find ways to solve the crisis in reading among the disadvantaged.

Although approaches to teaching reading are now increasingly eclectic ones that seem reasonable and sound, a hard core of non-readers remains with us which seems to fall heavily, although not exclusively, in the lower socio-economic strata of society.

Looking to societal causes for problems in learning, we find:

1. Increasing evidence that environmental conditions affect the inherent capacity to learn as significantly as original endowment, although both are hard to measure
2. Increasing evidence that an unbroken chain of relationships exists between experience, verbalization, and symbols in print
3. Increasing evidence that the limitations of certain social environments affect experience and language
4. Increasing evidence that the achievement on reading tests of children of reading families points to the necessity of pre-reading experience with books and book language.

We are beginning to recognize that the reading problems of disadvantaged children begin before they arrive at school, only to be consolidated shortly after. The failure, however, seems related more to inadequate readiness and motivation on the part of the children than to specific methods of teaching reading. This lack of readiness cannot be dispensed with lightly as evidence of "poor stock," as was once thought or of low

"I.Q.", a more sophisticated but equally over-simplified explanation.

Although I.Q. scores and reading achievement scores are indeed correlated, it now seems that the common factors of language and experience affect both, instead of one being the cause of the other. We seem to be trying to reach children who enter school with two handicaps due to ommissions of experience, both of which affect their reading achievement:

1. They are less familiar with verbal handling of ideas and feelings than are children of better educated parents, who, as a group, do not suffer reading deficiency

2. They do not, on entering school, conceive of the special satisfactions hidden in the symbols on the pages of books, an experience quite familiar to most children of better educated parents.

In the light of what we know about how young children learn, we may assume that inexperience with words as mediators of feeling and purveyors of thought, coupled with an absence of conceptualization about the value of books are enough to offset any method of teaching reading that does not take those deficiencies into account. Thus, although the opportunity to achieve at school is theoretically available to all, in practice it is not, because so many children of low socio-economic parents come to school unprepared to learn to read.

The Problem

The purpose of this research was to determine whether, by means of a special program in literature, young children of socially disadvantaged background could be significantly assisted in developing vocabulary and reading skills. Investigating this problem, the following subordinate problems presented themselves:

Subordinate Problems

1. Does persistent exposure over a given period of time to stories comprehensible to young children of limited verbal experience cause measurable gain in the vocabulary of such children?

2. Does persistent exposure over a given period of time to books that have the potential to involve children in emotional identification with major characters, ideas or events cause a measurable gain in the vocabulary of such children?

3. Does clarification of the meaning of unfamiliar words in stories through appropriate explanations and activities cause measurable increase in vocabulary?

4. Does the combination of the increased vocabulary, and improved attitudes towards books as a source of pleasure, make a significant contribution to the reading achievement of disadvantaged children?

Delimitations

This research was conducted in special service schools in New York City because such schools have a pupil population which comes from low socio-economic families which are generally of low-educational background. There is a history of academic retardation in special service schools.

All teachers participating in the research were licensed by the New York City Board of Education, and had to have had at least one full year of teaching experience prior to the study.

All classes of pupils were taught reading by basal series methods.

Because of the high transiency and absence rates in special service schools, it was not expected that the original group of five hundred and eighty children would yield data from more than two hundred children.

Definition of Terms

Special service schools, when referred to in this study, means public schools within the New York City school system that are so designated when a combination of the following factors is present in the school: academic achievement sufficiently retarded to require special attention and services; racial and ethnic composition primarily of minority groups; percentage of free lunches indicating low income level; children who disrupt normal classroom functioning and require special attention. The economic and educational level of parents in communities which have special service schools is generally lower than in communities and schools designated as "middle-class."

Disadvantaged children, underprivileged, culturally limited, or deprived children, when referred to in this study means children of low socio-economic level whose parents have had meager educational background, whose range of experiences in life is more sharply bounded by physical and survival needs than is true of the more economically favored. These terms in no way imply that such children do not have "a culture" of their own, as contra-indicated by Frank Riessman[1] and others, nor that they fall into stereotypes of "happy," "shiftless," "without ambition" or any other prejudicial stereotype. The terms carry no value judgment at all, and in this study, refer only to a paucity of the kind of experience, in variety and type, that is associated with success in school learning, a paucity which is more frequent among the poor and uneducated than among the middle classes, although by no means confined to the poor alone.

Good literature of the here-and-now variety

Stories and poems characterized as good literature for children are so designated by literary experts because of their language, form, organic unity, appropriateness of theme, and possibilities for child identification with characters and plot. Here-and-now variety refers to stories and poems whose imagery and/or fantasy are based upon reality, especially reality comprehensible to a young child, in contrast to abstract or supernatural conceptions usually remote from the scope of young children's imagination. The quality of the language, and the comprehensibility were both important to the children in this study because of their particular limitations.

---

[1] F. Riessman, The Culturally Deprived Child. New York: Harper and Bros., 1962.

Accompanying activities to heighten comprehension refers to suggestions to the teachers, incorporated in a brief manual, for such follow-up procedures as discussion, dramatization, illustration by children, additional reading on a theme, pictures other than those in the book, concrete illustrations, puppets, explanations of words and references in the story, browsing, and activities inspired by suggestions within the story or poem, such as construction, letter-writing, crafts or other appropriate means of expression.

Comprehension here means evidence of understanding, rather than repetition of words and phrases, judged by assorted responses of the children:

> verbal responses, as indicated in response to questions, shared comments, discussion, questions asked by the children, and further interest in the theme or topic of the story;

non-verbal responses such as smiles, frowns, sympathetic expressions, gestures, laughter, etc., and things made, pictures drawn or painted, models, construction, etc. that clearly indicate comprehension.

Basic Assumptions

1. that a contemporary reading problem of sufficient importance to cause considerable concern among educators exists in our public schools, especially among low income groups

2. that the value system of parents in low socio-economic strata often does not incorporate reading to children as a commonplace experience

3. that there is a difference between standard and sub-standard language, and that the children of uneducated parents are likely to use sub-standard speech, whereas the language of schools and most books is standard

4. that learning to read requires self motivation, but the inadequate experiences with books before coming to school, as well as the conflict in values between home and school, does not lead the lower class child to strive meaningfully for succes in reading as his counterpart in the middle class is likely to do.

Hypothesis

It is hypothesized that the introduction into the curriculum of disadvantaged second grade children of a special program of literature and accompanying activities designed to heighten comprehension, will cause significant measurable improvement in the vocabulary and reading achievement of these children.

CHAPTER II

NATURE AND SCOPE OF THE PROBLEM

The Relation of Reading to Language and Experience

The hard core of non-readers in the nation's schools is found mainly among the children of the economically impoverished. Such families are more likely than not to be educationally impoverished as well. It is worth noting that the common observation that the poorly educated are not readers of books is supported in a study of adult reading habits,[1] a conclusion which in turn fortifies that of Link and Hopf[2] made earlier, that "the active reading population of our country is college bred...; children of non-college parents are less likely to be exposed to actively reading adults in the house." This information takes on special meaning in the light of the relationship between children's achievements on reading tests and their membership in "reading families" uncovered by Sheldon and Carillo,[1] and the discovery by Keshian[2] and Milner[3] that successful readers were read to by their parents as preschoolers. Apparently non-reading children perpetuate the non-reading patterns of their parents in a self-defeating cycle.

---

[1] Division for the Scientific Study and Advancement of Education, Teachers' Reading Values in an Exploratory Investigation, A. T. Burrows, Director of the Project, New York University, New York, 1953.

[2] H. Link and H. Hopf, People and Books: A Study of Reading and Book-Buying Habits, Book Industry Committee, Book Manufacturers Institute, New York: 1946.

A general relationship between reading and oral language has been suggested many times, and shown clearly by Raulin in 1962.[4] It is of great interest, therefore, to find evidence also of a relationship between parental education and language facility[5] in addition to the relationship between parental education and reading. From findings of this kind, it seems reasonable to assume that poorly educated adults do not offer either exposure to books or a sufficiently stimulating verbal environment of the kind that is helpful to children in learning to read.

The existence of a general relationship between language and cultural experience when cultural is interpreted in an anthropological sense was first noted by Sapir[1] and advanced by Whorf[2], Kluckhohn[3] and Hoijer[4] among others. The more specific relationship between language and the culture of a particular socio-economic class in contemporary society was uncovered by such sociologists as Schatzman and Strauss[5], Werner Cohn[6] and Herzler[7] in America, Basil Bernstein[8] in England and Medorah Smith[9] in Hawaii, to name a few.

---

[1] W. Sheldon and L. Carillo, "Relation of Parents, Home and Children's Reading," *Elementary School Journal* 52 5 January 1952, 262-270.

[2] J. Keshian, "Experiences and Personality Traits Common to Children Who Succeed in Reading," unpublished Doctoral Thesis, New York University, New York, 1960, 124 pp.

[3] E. Milner, "A Study of the Relationship Between Reading Readiness in Grade One Schoolchildren and Patterns of Parent-Child Interaction," *Child Development* 22 1951, 95-112.

[4] A. Raulin, "A Study of the Relationship Between Silent Reading and Oral Vocabulary of Elementary School Children," (unpublished Doctoral thesis, New York University, New York, 1962), 144 pp.

[5] R. Strickland, *The Language of Elementary School Children: Its Relationship to the Language of Reading Textbooks and the Quality of Reading of Selected Children*, Bulletin of the School of Education, Indiana University, Indiana, vol. 38, No.4, July 1962.

---

[1] E. Sapir, "Language", Encyclopedia of the Social Sciences, V. 9-10, ed. by E. Seligman, New York; The Macmillan Company, 1933, pp. 155-169.

[2] B. Whorf, Language, Thought and Reality, New York; John Wiley and Sons and The Technology Press of Massachusetts Institute of Technology, 1956, 278 pp.

[3] C. Kluckhohn, "Culture and Behavior," Chapter 25, Handbook of Social Psychology, ed. by Gardner Lindzey, Massachusetts: Addison-Wesley, 1954.

[4] H. Hoijer, "The Relation of Language to Culture," Anthropology Today, ed. by A.L. Kroeber, Chicago: University of Chicago Press, 1953, pp. 554-573.

[5] L. Schatzman and A. Strauss, "Social Class and Modes of Communication," American Journal of Sociology, v. 60, January 1955, 329-338.

[6] W. Cohn, "On the Language of Lower Class Children," School Review, 67: Winter 1959, 435-440.

[7] J.O. Herzler, "Toward a Sociology of Language," Social Forces, December 1953, v. 32 No. 2, pp 109-119.

[8] B. Bernstein, a. "Some Sociological Determinants of Perception" British Journal of Sociology, v. 9, 1958 159-174. b. "A Public Language" British Journal of Sociology, December 1959, 311-327.

[9] M. Smith, "Some Light on the Problem of Bilingualism as Found From a Study of the Progress in Mastery of ~~the~~ English Among Pre-school Children of Non-American Ancestry in Hawaii." Genetic Psychology Monograph 21: 1939, 119-284.

In 1948, J. Allen Figurel[1] narrowed down the relationship between language and class to the specific vocabulary of underprivileged children in a study conducted in two major American cities. Using a technique of free association to gather data from second to sixth grade children, Figurel first compared his findings on the vocabulary of underprivileged children with those of Buckingham and Dolch[2] who had previously employed the same technique with average children. He then compared his results with several other vocabulary lists gathered in a variety of ways: the International Kindergarten Union List[3], Ogden's Basic English list,[4] Daw's Controlled Vocabulary for the Middle Grades,[5] and the findings of Thorndike,[6] Rinsland[7] and Horn.[8]

---

[1] A. Figurel, "The Vocabulary of Underprivileged Children," unpublished Doctoral Dissertation, University of Pittsburgh, 1948, 242 pp.

[2] B.R. Buckingham, and E. Dolch, A Combined Word List, New York: Ginn and Company, 1936.

[3] International Kindergarten Union, Study of Vocabulary of Children Before Entering First Grade, Washington, 1928.

[4] C.K. Ogden, The System of Basic English, New York: Harcourt, Brace and Company, 1934, 309-18.

[5] S. Daw, "A Controlled Vocabulary for the Middle Grades," Unpublished Doctoral Dissertation, University of Pittsburgh, 1940, 37pp

[6] E. Thorndike, and I. Lorge, The Teachers Word Book of Thirty Thousand Words, New York: Bureau of Publications, Teachers College, Columbia University, 1944.

[7] H. Rinsland, A Basic Vocabulary of Elementary School Children, New York: The Macmillan Company, 1947.

[8] E. Horn, A Basic Writing Vocabulary, Iowa City: Bureau of Publications, University of Iowa, 1926.

By every measure the vocabulary of the underprivileged group was seriously deficient both in quantity and quality. Figurel concluded that "on the basis of the ratio of number of words known to to the number of words that should be known, underprivileged children know only every second word which they encounter in their reading.......On the basis of the ratio of words known to the number not known, underprivileged children (in the second grade) know every third word in the vocabulary (expected of them).[1]

The Nature of Language Learning

The theoretical conceptions of the psychologists Vygotsky[2] and Church[3] are very useful in understanding the process by which language and experience develop in interdependent relationship from infancy. They describe the mechanics by which language facility can become more or less effective as a tool of learning, because the process of language learning is heavily dependent on and only partly independent of environmental exposure. Vygotsky speaks of an anticipatory assimilation of the structure and syntax of language from the model heard before a child can himself speak, and the eventual internalization of the speech used orally by the child into the inner speech of thought. Church ascribes to language the role of organizing the reality of one's world into an ever-expanding categorization of the environment and personal experience, a process in its turn related to and dependent upon the environment perceived and the language used by adults to interpret the environment to the child. When these conceptions of how language is learned are added to the findings of the anthropologists and sociologists, the initial causes for the deficiency in language of socially disadvantaged children begin to emerge. The causes seem rooted in the restricted range within which language power can expand when the family and community environment involuntarily limit the complexity of language heard and the variety and spread of experience associated with language. The model of oral language which is later reflected and extended in the language of the books at school is thus not likely to be available to children of educationally impoverished parents.

---

[1] Figurel, op.cit., 46-47.

[2] L.S. Vygotsky, Thought and Language, New York; John Wiley and Sons, 1962.

[3] J. Church, Language and the Discovery of Reality, New York: Random House, 1962.

There is ample evidence that language deficiency occurs long before school entry. Bloch,[1] Carroll,[2], Haugen,[3] Fischer[4] agree that all children master their native language by the end of the fifth year. Bossard,[1] Irwin,[2] Milner,[3] and Templin[4] show the relationship between speech thus mastered and social class. McClaren[5] among others shows an association between the inadequacy of language and the unreadiness for reading that leads so soon to a sense of failure. However, it is also likely that present school practices do not meet this deficiency suitably, as efforts to improve vocabulary and reading have been only partially successful. Figurel's study shows an increase in vocabulary of underprivileged children as they proceed through the elementary grades,[6] and a narrowing of the gap between them and more advantaged children when the vocabulary tested relates to school learning. But Walter Loban's long study of a mixed socio-economic group of children from kindergarten to high school shows that the gap between the nearly parallel curves of development of the two socio-economic groups does not grow significantly smaller even after years of schooling. Those children who showed language poverty early, showed deficiency many years later as well.[1]

---

[1] B. Bloch and G. Trager, "Outline of Linguistic Analysis," published by Linguistic Society of America, Baltimore, Md.:1942.

[2] J. Carroll, "Language Development," *Encyclopedia of Educational Research*,1960, 744-752.

[3] E. Haugen, "Bi-Lingualism in the Americas," *American Dialect Society* Publication #26, Alabama: University of Alabama Press.

[4] J. Fischer, "Social Influence on the Choice of Linguistic Variant," *Word*, v. 14, 1958, 47.

---

[1] J. Bossard, "Family Modes of Expression," American Sociological Review, 10, 1945, 226-237.

[2] O.C. Irwin, "Infant Speech: Effect of Family Occupational Status and of Age on Sound Frequency," Journal of Speech and Hearing Disorders, 13, 1948, 320-323.

[3] E. Milner, "A Study of the Relationship Between Reading Readiness in Grade One Schoolchildren and Patterns of Parent-Child Interaction," Child Development, 22, 1951, 95-112.

[4] M. Templin, "Relation of Speech and Language Development to Intelligence and Socio-economic Factors," Volta, v. 60, September 1958, 331-334.

[5] V. McClaren, "Socio-economic Status and Reading Ability," Studies in Reading, v.2, Scottish Council for Research in Education, London: University of London Press, Ltd., 1950.

[6] A. Figurel, op. cit.

When we recognize that a relationship exists between language power and school learning, between vocabulary and reading, between word meaning and all language skills, then the inadequate vocabulary of the underprivileged children can be seen as a serious deterrent to learning to read with comprehension, and therefore a deterrent to a reasonable chance for school success. Helen C. Dawe's study of a concentrated approach to word meaning through discussion and stories[2] is evidence that the process is not irreversible, at least at age four. There is a point, therefore, in attempting to increase the children's knowledge of words and their meaning early in their school career, before a sense of failure becomes an established fact.

Theories of Learning Affect Curriculum

In attempting to meet the deficit in language, we must take cognizance of the way in which language is learned, but we must also be aware of the ways in which children learn in general. The view of learning implicit in this study is one that recognizes the integration of the psycho-dynamic aspects of behavior into the learning process, thereby interpreting learning as a process in which the affective and the cognitive dimensions of the learning situation are mutually interactive and interdependent.[1] An essential concept relevant to this view, drawn from ego psychology and best stated by R.W. White,[2] is the concept of "motivation for effectance," or motivation for competency. The assumption here is that the desire or need for competency is inherent in normal human behavior, and therefore children will learn what they are capable of learning and what they want to learn out of a need to attain the satisfaction to be gained from mastery, achievement, and the feeling of competence that ensues from these. In a sense this view can be seen to support the social expectation that there is intrinsic pleasure in learning.

---

[1] W. Loban, U.S. Office of Education Study of Language Development, "Language Ability in the Middle Grades of the Elementary School," Berkeley: University of California, Department of Education, 1962.

[2] H.C. Dawe, "A Study of the Effect of an Educational Program Upon Language Development and Related Mental Functions in Young Children," Journal of Experimental Education, 2, December 1942, 200-209.

Traditional educational practice, on the other hand, seems to have originated in a primary focus on subject matter,[3] and, if the early pedants are to be believed, teachers of traditional methods tended to anticipate resistance to learning among the children. The psychological underpinning of this traditional view came later in educational history in the body of learning theory based on animal psychology. Initially focused in theories of association and conditioning, a concept of motivation emerged which shifted from drive reduction and reward and punishment, to reinforcement theories.[1] The assumption in this approach appears to be that learning will take place provided the component parts of the subject have been graded into an order consistent with the logic and structure of the subject, followed by arrangements of greater or lesser efficiency to insure memorization and retention.[2] The careful analysis of the logic and orderliness of the subject matter to be learned is not matched however with an equally careful analysis of the learner. Such relevant factors in the learner as age, stage, experiential readiness, the complexity of what motivates the potential learner to learn or not to learn, awareness of his ability to make his own connections between adult knowledge and childhood understanding, or the defenses called upon to protect his concept of himself as a learner, are not basic components of this motivational approach.

---

[1] Association for Supervision and Curriculum Development, Learning and Mental Health in the Schools, 1966 Yearbook, Washington, D.C., 1966.

[2] R.W.White, "Motivation Reconsidered: The Concept of Competence," Psychological Review 66, 1959, 297-323.

[3] B. Smith, W.Stanley, J. Shores, Fundamentals of Curriculum Development, New York: World Book Company, 1950.

Attention to the dynamics of the learning process in the case of the disadvantaged child, his motivation, aspiration level, self-concept, anxiety in the face of the school situation and his fear of failure, were given serious consideration in examining the problems faced in this research. Analysis of children's way of learning coupled with analysis of the reading process lead to the conclusion that the problems in reading of large numbers of children in low socio-economic areas cannot be met by the search for better techniques to carry them from one stage to another although there is value in this at certain points. The problem lies in the elusiveness of the very meaning of reading. This appears to be a phenomenon of life-style which is canalized by the inadequacy in range and flexibility of the oral language base that must serve as a prior symbol system for words in print. Such shortcomings make it all but impossible for children to utilize their inherent desire for competency, despite their awareness of the social significance of reading, or their ability to learn in out-of-school areas.

---

[1] R.W. White, *op. cit.*

[2] E. Hilgard, *Introduction to Psychology*, NewYork: Harcourt Brace and Company, 1953, 209-281.

It seems reasonable to infer, from the studies noted on page 10, that the desire to read has often not been cultivated too deeply among many disadvantaged chidren in spite of the hopes of both the parents and the children that they will be among those who do learn. All too frequently this poorly cultivated desire is lost because the children are not ready for the school's categorical starting point. Unfortunately the desire to learn to read cannot be equated with being ready, and therefore able, at the moment when this is required by the school. Readiness to read requires, among other things, an oral language base that has reference to the symbols in print, a base suspected of being inadequate for present school practices among the children of the uneducated who form the bulk of the nation's reading failures. There must be a minimal awareness of the relation between symbols of words and meaning, a relation that grows out of satisfying exposure to meaningful print. There must be a conviction that learning to read is important, and there must also be faith in one's own power to learn to read, a conviction and faith children learn from adults in the satellization process.

The expectation in some schools that the pace of children's learning once they enter school will keep abreast of the orderliness of progression within the reading skill is for many children who are not ready another of the snares that foster failure. The children seem unable to get past the beginning stages in the reading process, stages that are not always even perceived as hurdles among other groups of children. These beginning stages for all children have their roots in motivation and readiness, both related to experience with books and language. Early failure for these causes becomes compounded with each year at school, ultimately jeopardizing later learning.

For disadvantaged children, as for children of any background, motivation of the kind necessary for reading can occur only on a child's terms within the scope of his own understanding. For the disadvantaged child, special account must be given to his feeling about himself as a school learner and the fact that reading is an elusive goal, if it is a goal at all. Readiness can develop only if the realistic limitations of a physical or psychological character that interfere with learning are affected by growth and/or appropriate treatment at an appropriate time. The ultimate movement toward learning, however, must come from within the child as his integrated response to the experiences consciously and thoughtfully offered him by teachers.

Beginning from a dynamic appraisal of the behavior of the learner, and utilizing the theory of motivation for competency, it becomes clear that we are dealing with children whose real needs are the _need to want_ and the _need to be ready_. Carefully prepared stages within the subject matter can be of use to them only if these primary needs are met. What is called for in their early school years is not the _logical_ approach to the unfolding of subject matter, but the _psychological_ approach to a child's development of feelings of competency and mastery in the area of any given body of content, as a result of experiences planned to accomplish just that.

Applying this view to the learning of language, one must take into account the probability that children everywhere learn language as a means of social relating,[1] and learn it from adults with whom they have a significant relationship, not by rote, or by deliberate intent, but as part of the ongoing relationships,[2] good or bad, that are inevitably meaningful to a child because he is a child. Further, every child absorbs his native tongue with remarkable precision, but only in imitation of the available models.[3] The disadvantaged child who has an inadequate language model, and an inadequate range of experiences to give his language meaning, learns as truly from his model as the favored child learns from his.

---

[1] L. Vygotsky, _op. cit._

[2] J. Church, _op. cit._

[3] J. Bossard, "Family Modes of Expression," _American Sociological Review_, 10, 1945, 226-237.

This assimilative nature of language learning, along with the primarily concrete and non-operational character of children's thinking,[1] precludes a focus on the learning of words in isolation as a means to vocabulary enrichment. Nor are children in the primary grades sufficiently developed for most of them to benefit from abstract comparative analysis of their own and other people's language usage. Meaning and emotional involvement must form the setting within which the processes of language learning can occur in childhood.

The Use of Literature to Facilitate Language Learning

The fact that language is learned initially in unselfconscious imitation of models with whom one identifies emotionally led to the search, in this study, for a body of language content which could be comprehensible in concept, and meaningful in emotional impact to the young children whose language deficit handicaps them in their school learning. Furthermore, this body of language had to serve as a model which would fulfill the school's expectations of language usage as well as the children's needs for language enrichment. Literature, which deals with the full range of human experience and emotion, including that which is comprehensible and empathic to young children, offered an appropriate approach to the problem. In this study, story books were sought which would realize this need of young children for emotional identification, but would also be a total intellectual experience that included a language model worth imitating. Thus the characters, plots, goals and events fell within the range of interests and understanding of children in the primary grades. In this way stories included possibilities for affective responses, along with the literary merit accorded them by experts in children's literature.

---

[1] J. Piaget, Logic and Psychology, New York: Basic Books, 1957.

Two concerns permeated the selection of plot and theme. The first concern was with childhood as a phenomenon. The minority group child, the poor child, the crippled child and the favored child all share in common certain universally characteristic experiences of childhood. They all know fear from first hand experience, they all feel the basic dependency of children on the largesse of adults, they all experience life in physical terms, and they adapt to the conditions life offers them with a range of behavior that can be delimited as human and childlike. They are constant learners, even when they are not learning what an adult aims at teaching them. For a long time they all learn without discrimination and without judgment, but they learn, because not to do so is to fail to become a member of the society they see as their own. And they all learn from models offered them by the significant adults in their lives regardless of the social status, character, motivation or goals of the adults who are important to them.

The second concern was with the fact that because young children are egocentric, they identify best with that which has personal meaning for them, and extend their understandings from a beginning base of self-involvement. Ausubel[1] defines this: "Ego involvement refers to the degree of self-implication in a given task or performance. Thus non-ego-involved areas in the environment are relatively peripheral or undifferentiated."

Self-involvement with school oriented materials and goals is more difficult for culturally disadvantaged children than for children whose home values are compatible with the school's. Yet without the self-involvement, children who are not familiar with the school's criteria for achievement will not learn. Ego-involvement occurs more readily in early childhood when the experience is sensory, or when it is readily and obviously associated with self. By the middle years of childhood, the capacity for identification beyond self in non-sensory, less concrete terms begins to emerge,[2] although both the sensory and the concrete still play a large role in learning. The sensory mode of response seems to last rather longer among the disadvantaged than among middle class children on the whole,[3] although the reasons for this are not completely clear. Attempts have been made to explain the continued mode of sensory response as a consequence of the dearth of individual attention to children more characteristic of some parents than of others, as a result of which less than optimal ego development ensues.[1] Individuation of response to the child is thought to relate not only to ego development but to language and thought as well.[2] Thus, if self is the focal point of relating to the world beyond the self, it should follow that the more clearly differentiated the sense of self, the more differentiating is the perception of and response to the environment. Since language is coexistent and ultimately interwoven with the process of differentiating self from the environment as it proceeds from self to objects, to people and back again, words take on more or less richly perceived meaning of objects and relationships in the environment that impinges on the self. The less developed the ego, the more concrete and specific must be the experiences with which one can feel ego-involved.

---

[1] D. Ausubel, *Theory and Problems of Child Development*, New York: Grune and Stratton, 1958, 309.

[2] J. Piaget, *op. cit*.

[3] F. Riessman, *The Culturally Deprived Child*, New York: Harper and Brothers.

Bearing the above in mind, the story themes and plots chosen for disadvantaged children had to remain close to the world of sensory and factual reality, and deal with concrete sensory experience in order to make identification and self-involvement more readily possible for the child listeners. At the same time the stories had to be more complex than the purely descriptive rendering of the familiar that appeals to younger, pre-school children in order to take account of the children's maturity. For the children in this research, the stories had to be strong narratives, with unity of plot, and a style related to the nature of the story. Drama, suspense, humor and adventure, characteristics enjoyed in literature by all ages, were particularly necessary ingredients for children whose attention had to be held through a flow of partially unfamiliar words.

---

[1] D. Ausubel, "Ego Development Among Segregated Negro Children," *Education in Depressed Areas*, ed. H. Passow, New York: Teachers College Press, 1963.

[2] B. Bernstein, "Social Class and Linguistic Development: A Theory of Social Learning," *Education, Economy and Society*, A. Halsey, J. Floud and C.A. Anderson, eds., New York: Free Press of Glencoe, 1961.

CHAPTER III

RELATED STUDIES

The literature related to this study falls into four areas:

1. Relation between socio-economic status, school learning and reading retardation
2. Relation between socio-economic class and language power
3. Relation between language power and reading readiness
4. Vocabulary analyses and tabulation

Relation between Socio-economic Class and School Learning

The existence of a learning problem among the poor has been described in the literature over many decades, but was generally assumed in the past to be the result of low intelligence. To Allison Davis[1,2] goes the credit for first seriously raising the question of whether the problem was actually due to heredity as presumed. His classic "Social Class Influences

---

[1] A. Davis, Social Class Influences Upon Learning, Cambridge: Harvard University Press, 1948.

[2] A. Davis, Children of Bondage, Washington, D.C.: American Council on Education, 1940.

Upon Learning" challenged the validity of the I.Q. test itself on which the "scientific" presumption of inadequate intelligence was based. Davis' "Children of Bondage," a study of Negro children of different socio-economic opportunity and background of experience, showed clearly the social causes associated with and responsible for success or failure at school. Attitudes towards school and towards self, aspirations and goals, encouragement and help were very different for the children of the different classes in that study. Warner, Meeker and Eels[1] also contend, on the basis of evidence, that the school failure of lower class children cannot be blamed as much on differences in intellectual ability as on differences in cultural and economic opportunity related to class. In the view of Platter and Sherwood,[2] the children's poor showing on the verbal parts of the I.Q. tests, which correlate statistically with reading, is evidence only of already existent reading disability, and not of lack of innate potential. For some children with reading disabilities, say Platter and Sherwood, low I.Q. and reading disability are a function of lack of capacity to learn, but for many pupils it is likely that reading disability is a function of social or psychological conditions rather than the capacity to learn. Other investigators concur in the belief that the relationship between school failure and social class is caused by conditions that produce unreadiness for schools as they are presently constituted. This is the thesis of Frank Riessman's Book, "The Culturally Deprived Child,"[1] and is the thinking that led Hieronymous[2] to assert that socio-economic status is an even better predictor of school success than is intelligence. Loeb[3] believes that conflicting motivation and rejection of what the school has to teach are significant factors in the school failure of the low income child.

---

[1] W.L. Warner, M. Meeker and K. Eels, "Social Status in Education," The Phi Beta Kappan, 20, December 1948, 113-119.

[2] E. Platter, S. Platter, C. Sherwood and S. Sherwood, "Relationship Between Reading Retardation and the Measurement of Intelligence," Personnel and Guidance Journal, 38, 1959, 49-51.

The problem is real enough to cause teachers to adapt their teaching skills to expectations based on experience. A principal in a slum area is quoted by Becker[4]:

> The children come into our upper grades with very poor reading ability. That means that all the way through our school everybody is concentrating on reading. It's not like at a school like S-----(middle income) where they have science and history and so on. At a school like that they figure that from first to fourth grade you learn to read and from fifth to eighth you read to learn. You use your reading to learn other material. Well, these children don't reach the second stage while they are with us. We have to plug along

---

[1] F. Riessman, The Culturally Deprived Child, New York: Harper and Bros, 1962.

[2] A.N. Hieronymous, "A Study of Social-Class Motivation: Relationships Between Anxiety for Education and Certain Socio-economic Variables," Journal of Educational Psychology, 42,1951, 193-205.

[3] M.B. Loeb, "Implications of Status Differentiation for Personal and Social Development," Harvard Education Review, 23, Summer 1953, 168-174.

[4] H.S. Becker, "Social Class Variations in the Teacher-Pupil Relationship," Journal of Educational Sociology, April 1952, 25, 451-456.

> getting them to learn to read. Our teachers are pretty well satisfied if the children can read and do simple number work when they leave here. You'll find that they don't think very much of subjects like science, and so on. They're just trying to get these basic things over.

Gaugh[1] in 1946 found positive correlations between socio-economic levels and vocabulary, arithmetic, reading ability and language ability. Hill and Giammatteo[2] found that by Grade Three children of a high socio-economic group are eight months ahead of the children in the low group in vocabulary achievement on the Iowa Tests of Basic Skills, and a full year ahead in reading comprehension, indicating a high relationship between socio-economic level and school achievement. Martin Deutsch[3] found that school retardation was not only associated with general conditions of poverty, but seemed to be increased further by the special despair that comes with being a member of a minority group in an unfriendly majority society.

Relation Between Socio-Economic Class and Verbal Power

Nevertheless the verbal deficiency revealed on I.Q. tests is real, and has been observed in situations other than

---

[1] G. Gaugh, "Relationship of Socio-Economic Status to Personality Inventory and Achievement Tests Survey," Journal of Educational Psychiatry 37, 1946, 527-540.

[2] E.H. Hill, and M.C. Giammatteo, "Socio-Economic Status and Its Relationship to School Achievement in the Elementary School," Elementary English, March 1963, 265-270.

[3] M. Deutsch, "Minority Groups and Class Status as Related to Social and Personality Factors in Scholastic Achievement," Monograph published by Society for Applied Anthropology, New York; 1960.

I.Q. tests by many investigators. According to Bossard,[1]

> Lower class children, however, enter school with a severe language handicap. They have a meager vocabulary and are accustomed to poor grammar, profanity and improper word usage. Therefore when they come to school they must relearn the language before they can fit into the school program. By the time they have accomplished this, they have become retarded learners.

Bossard's view is supported by others. Tomlinson[2] says, "There seems to be a lack of interest in words, among lower class children. They are accustomed to use few nouns, even for familiar things. They say, 'that thing' and when asked 'what thing?' answer disinterestedly 'What you call that thing?' and forget its name in five minutes unless a challenge of some kind is associated with it."

The problem is not a new one. McCarthy[3] reports that Chamberlain[4] in 1900 stated that as early as 1847 Degerando[5] reported "The child of the rich understands more words and less actions, and the child of the poor less words and more actions."

McCarthy also refers to the work of Descoeurdres,[6] who in 1921 tested three hundred children of upper and lower class origin, using an extensive battery of tests involving language. Children of the upper classes were superior. McCarthy in 1930,[1] Day,[2] in 1932 and E.A. Davis,[3] in 1937 showed consistent language differences in favor of upper socio-economic levels (as judged by paternal occupations). In 1941 F.M. Young[4] studied 74 children, half in attendance at a University nursery school open to children of faculty and graduate students, and half enrolled in a Federal Emergency Relief Project Nursery. The children from the University school surpassed the relief group in all aspects of language analyzed.

---

[1] J. Bossard, "Family Modes of Expression," American Sociological Review: 10. 1945, 226-237.

[2] E. Tomlinson, "Language Arts Skills Needed by Lower Class Children," El English v. 33, 1956, 279.

[3] D. McCarthy, "Language Development in Children," in Carmichael (ed.) Manual of Child Psychology, ed. 2, New York: Wiley & Sons, 1954, 492-630.

[4] Ibid., 586.

[5] Ibid., 586.

[6] Ibid., 586.

In 1958 and 1959, Basil Bernstein,[5] a British sociologist, confirmed these observations but offered a somewhat more analytical, but albeit still theoretical explanation for the same phenomenon of language difference by class.

Templin[6] studied 480 boys and girls between three and eight years of age, with sixty children at each half year difference between three and five, and year differences between five and eight. Again there were consistent differenses in performance of upper and lower socio-economic status groups. The upper group received higher scores consistently at each age level for all language measures. Of 230 comparisons, the lower group was higher in only thirteen instances. Colvin's[1] study had found that children whose fathers were employed in skilled occupations scored higher than children whose fathers were semi-skilled, and children of white collar and supervisory workers obtained the highest scores. But Templin in her study suggests that fathers' occupations as an index is not sufficient, and urges that more specific dimensions of class factors are needed. The most pertinent specific factor may well be the amount of education of the parents, which affects language usage and is generally correlated with class. This was shown to be true in such studies as Esther Milner's[2] and Ruth Strickland's[3], both of which used educational status of parents as a variable in the socio-economic classes studied.

---

[1] D. McCarthy, The Language Development of the Pre-School Child, Minneapolis: University of Minnesota Press, 1930.

[2] McCarthy, op.cit, p. 586.

[3] Ibid., 586.

[4] F.M. Young, "Certain Social Indices in the Language of Pre-School Subjects," Journal of Genetic Psychology, 61, 1942, 109-123.

[5] B. Bernstein, a. "Some Sociological Determinants of Perception," British Journal of Sociology, 1958, v. 9, 159-174.
b. "A Public Language," British Journal of Sociology, December 1959, 311-320.

[6] M.C. Templin, "Relation of Speech and Language Development to Intelligence and Socio-Economic Factors," Volta, v.60, September 1958, 331-334.

---

[1] C.M. Colvin, "A Re-examination of the Vocabulary Question," Elementary English, v. 6, October 1951, 28, 350-356.

[2] E. Milner, "A Study of the Relationship Between Reading Readiness in Grade One School Children and Patterns of Parent-Child Inter-action," Child Development, 22, 1951, 95-112.

[3] R. Strickland, The Language of Elementary School Children: Its Relationship to the Language of Reading Textbooks and the Quality of Reading of Selected Children, Bulletin of the School of Education, Bloomington: Indiana University, v. 38, No.4, July 1962.

Laird,[1] who speaks of language as learned at the mother's knee, suggests that it is the mother's pattern that shapes the child's speech. Noel's[2] study does actually show high correlation between the language errors of mothers and the errors of children, and slightly lower correlation between errors of fathers and errors of children.

A study by the sociologists, Schatzman and Strauss,[3] of a community's reactions to a common dramatic experience (a tornado) analyzes the specific ways in which class differences in speech were revealed by the two major adult population groups classified as to income and educational status. This study strengthens the premise that the speech models offered to a child differ with education level of parents. In an article in Elementary English, Dawson[4] quotes Havighurst:

> ....a child born and reared in a home of low socio-economic Bevel tends to be retarded in language development as compared with one reared in a middle class home where the parents are much interested in the child's speech development and tend to use language extensively in earning their livelihood.

---

[1] C. Laird, The Miracle of Language, Greenwich, Conn: Fawcett Publications, 1953.

[2] D.L. Noel, "A Comparative Study of the Relationship Between the Quality of the Child's Language Usage and the Quality and Types of Language Used in the Home," Journal of Educational Research, 47, Nov.,1953, 161-167.

[3] L. Schatzman, and A. Strauss, "Social Class and Modes of Communication," American Journal of Sociology, v. 40, January 1955, 329-338.

[4] M. Dawson, "Language Learning Related to Pace," Elementary English, v. 28, No. 7, November 1951, 405- 409.

It is in Bossard's[1] work, later supported by Milner,[2] that we find the more closely related link between parental class, educational status, and the language of children. Bossard studied family conversations around the dining table, using transcripts of fifty-one families and other special case material. His conclusions pertinent to this study are:

a. Language is a mechanism or medium of a social inter-action and for the transmission of all forms of culture.

b. Modes of expression constitute a distinctive aspect of family situations.

c. Language is behavior, much like manners or dress, whose standard and requirements vary on the basis of class, origin, occupation, activities and the like.

d. Language, early learned and constantly associated with every other aspect of culture, comes in a peculiar way to serve as a symbol of home, family, class, status and country.

Loban's[3] study of the language of children from kindergarten to high school indicates a continuing gap in facility between lower and upper class children, supporting the view that the earliest influences of the home have so far continued to be the most powerful, and suggesting the need for seeking new approaches to the school learning of low-income children.

---

[1] J. Bossard, The Sociology of Child Development rev. ed. New York: Harper & Bros., 1954, 199.

[2] E. Milner, op. cit.

[3] W. Loban, U.S. Office of Education, Study of Language Development, "Language Ability in the Middle Grades of the Elementary School," Berkeley: University of California, Dept. of Education, 1962.

Relation Between Language Power and Reading Readiness

Reading readiness tests recognize the importance of language factors as predictors of success in reading. The first sub-test of the Gates Reading Readiness Test measures ability to listen to what the teacher is saying, ability to understand what is being said, ability to grasp and make use of everyday words and concepts, and the ability to interpret pictures. Yet Gates,[1] in his manual, admits that it is too difficult to measure objectively "the all-important power to grasp and enjoy the substance of a story in terms of its main idea and plot organization, expressed through the listerner's ability to predict possible outcomes of the story." This relationship is derived from the apparent relationship between language and thinking, and the definition of reading as the ability to follow sequence and thought in print. Studies to show that this is so have been done by Russell,[1] Young,[2] and Spencer,[3] all reviewed in Ernest Horn's[4] chapter, "Language and Meaning," in the forty-first Yearbook of the National Society for the Study of Education. "The relation of meaning to language is the same whether the symbols be spoken or written," is the conclusion drawn by Horn. "Investigations have shown that at higher grade levels students who cannot understand what they read usually cannot understand what they hear."[5] There seems to be a close correspondence between the adequacy of a student's verbal statement of an idea and the clearness with which he grasps the idea."[6] "With the exception of a few special types, most of the so-called disabilities in reading, in the students' own verbal expression and in hearing, may be more properly ascribed to basic disabilities in language symbolization."[7]

---

[1] A. I. Gates, Manual of Directions for Gates Reading Readiness Tests, New York: Bureau of Publications, Teachers College, Columbia University, 1942.

---

[1] R.D. Russell, "The Relative Effectiveness of Presenting Verbal Material Orally as Measured by the Amount of Recall," Unpublished Doctoral Dissertation, University of Iowa, 1923, 126 pp.

[2] W.E. Young, "Relation of Reading Comprehension and Retention to Hearing Comprehension and Retention," Unpublished Doctoral Dissertation, University of Iowa, 1930, 344 pp

[3] E.M. Spencer, "Retention of Orally Presented Materials," Unpublished Doctoral Dissertation, University of Iowa, 1940, 181 pp.

[4] E. Horn, "Language and Meaning," Ch. 11, The Psychology of Learning, The Forty-first Yearbook, Part 2, National Society for the Study of Education, N.B. Henry (ed.), Bloomington, Indiana, 1942, 377-413.

[5] *Ibid.* 397.

[6] *Ibid.* 399.

[7] *Ibid.* 397.

Artley[1] points to a developmental sequence of gradients in language that shows oral language to be a precursor of reading:

1. Interpreting spoken language.
2. Expressing one's own ideas with spoken symbols of increasing variety, length and complexity.
3. Interpreting story content read by others in which the child senses the organization and sequence of ideas.
4. Developing a desire to read and eventually learning to read.

Thus, reading behavior has a broad foundation of language skills that serve as potent predisposers to success.

In 1950 Artley[2] did a comprehensive review of the research concerning inter-relationships among the language arts. One aspect of the review dealt with the relation between reading and other language arts or skills. According to Artley, Hildreth[3]

---

[1] A. Artley, "Oral Language Growth and Reading Ability," Elementary School Journal, 43, February 1953, 321-327.

[2] A. Artley, "Research Concerning Inter-relationships Among the Language Arts," Elementary English, 27, December 1950, 527-37.

[3] G. Hildreth, "An Individual Study in Word Recognition," Elementary School Journal V, April 1935, 606-619.

Hughes,[1] Lorge,[2] and Monroe[3] found that reading comprehension bears a close relationship to the extent of word knowledge. Hughes found a positive relation between achievement in reading and a wide range of other language skills. In all skills, *word meaning* was central, affecting high and low achievement with consistency. Buckingham,[4] Gates,[5] Hildreth,[6] Monroe,[7] Olsen,[3] and Seegers[9] all found reading achievement to be conditioned by the extent to which one has achieved or achieved growth in general language ability. Artley points to findings of Guilfoile,[1] MacCarthy[2] and Olson[3] to conclude that the curve indicating growth and development of reading skills shows close parallelism to the growth curves of other language arts areas. He also states that reading comprehension is positively related to hearing comprehension, and the extent of this relationship appears to be higher in the elementary grades than among adults; in turn hearing comprehension is positively related to vocabulary understanding and language usage.[4] At the end of the review Artley poses questions that influenced this study -- "Can relations among various areas be changed? To what extent does quantity and quality of oral language affect acquisition of reading? What kind of environment is necessary for language learning?"

---

[1] V. Hughes, "A Study of the Relationship Among Selected Language Abilities," *Journal Educational Research*, 47, October 1953, 97-106.

[2] I. Lorge, "Readability Formula--an Evaluation," *Elementary English*, 26, February 1949, 86-95.

[3] M. Monroe, *Children Who Cannot Read*, Chicago: University of Chicago Press, 1932.

[4] B.P. Buckingham, "Language and Reading," *Elementary English Review* 17, March 1940, 111-116.

[5] A.I. Gates, *Manual of Directions for Gates Reading Readiness Tests*, New York: Bureau of Publications, Teachers College, Columbia University, 1942.

[6] Hildreth, *op.cit.*

[7] M. Monroe, *op. cit.*

[8] W. Olson, "An Adaptation of Instruction in Reading to the Growth of the Child," *Educational Method* 20, November 1940, 71-79.

[9] J. Seegers, "Language in Relation to Experience, Thinking and Learning," Ch. 3, Forty-third Yearbook, part 2, National Society for the Study of Education, 1944, 36-51.

Esther Milner's[5] study of first-grade reading readiness among children of different socio-cultural background uncovered the fact that high scoring children are surrounded by by a much richer verbal family environment than are low-scoring children, with more books available to them, and read to personally by important adults. Indeed, the amount of suppertable conversation correlated highly with success in reading. Shire,[1] in finding a correlation between high reading achievement and such language factors as sentence length and number of different words used, says, "The relation between certain linguistic factors and reading achievement is fully as close as the relations usually found between intelligence tests, reading tests, and reading achievement tests." Earlier in this chapter we referred to the research that indicated that reading and intelligence test scores might well both be subject to the same common factor of linguistic power.

---

[1] E. Guilfoile, "Reality in the Language Arts Program," Elementary School Journal, 42, September 1941, 41-49.

[2] D. MacCarthy, "Language Development in Children," in L. Carmichael ed. Manual of Child Psychology, ed. 2, New York: Wiley, 1954, 492-630.

[3] W. Olson, "An Adaptation of Instruction in Reading to the Growth of the Child," Educational Method 20, November 1940, 71-79.

[4] A.S. Artley, op.cit.

[5] E. Milner, "A Study of the Relationship Between Reading Readiness in Grade One Schoolchildren and Patterns of Parent-Child Interaction," Child Development, 22, 1951, 95-112.

Strickland[2] states, "The child's oral vocabulary is of first importance in the elementary school because it forms the basis for the development of the reading and writing vocabularies. Children need guidance to add new words to their vocabularies but also need experience, in quantity, to deepen and enrich the meaning values of the words they have partially learned." And Seegers[3] noted "Language development is a unified, not a fragmentary process. Spelling, reading, and oral and written expression are different aspects of that development. They are interrelated. They reinforce each other." Dora V. Smith[1] supports this view.

---

[1] M.L.Shire, "The Relation of Certain Linguistic Factors to Reading Achievement of First Grade Children," Unpublished Doctoral Dissertation, Fordham University, 1945. As quoted by A.S. Artley, "Oral Language Growth and Reading Ability," Elementary School Journal, February 1953, 321-327.

[2] R. Strickland, The Language Arts in the Elementary School, D.C.: Heath and Company, 1957, 224.

[3] J.C. Seegers, "Language in Relation to Experience, Thinking and Learning," Ch. 3, Forty-third Yearbook, Part II, National Society for the Study of Education, 1944.

Hildreth's[2] review of research dealing with the interrelationship among the language arts, led her to conclude once again that "reading disability is essentially language disability." Florence Goodenough[3] found a correlation of .79 between ability to understand and explain meanings of words and reading, measured by the Stanford Binet Vocabulary Test and Stanford Achievement Test. Young[4] found that supposed reading difficulties often turn out to be language deficiencies. He found a correlation of .80 between ability to understand the passage read and the ability to understand the same passage when read to.

In a study of first graders in which Clyde Martin[5] was seeking to determine how oral language was related to reading, evidence showed that although first graders had individual developmental patterns in each language variable unrelated to other variables, there was one exception to this high degree of individual variability. The number of different words a child used had a low but positive correlation with readiness for reading. Conversely, in an article on the frequency of reading disabilities, Alden, Sullivan and Durrell[1] showed that low-capacity test scores in language comprehension are indicative of reading retardation. Evidence concerning the presence of language disability in reading cases has also been reported by Betts[2] and Harris[3]. In McClaren's[4] study of Scottish children, a discrepancy in class behavior appeared in the test involving verbal comprehension, but not in the test of verbal recognition. The language handicap tended to be greater for the entrants in the study who came from poorer areas. By and large these same children made lower showings on reading achievement tests than their middle-class counterparts.

---

[1] D. Smith, "Language Arts in the Life of the School," Elementary English Review, 21, May 1944, 161-167.

[2] G. Hildreth, "Inter-relationships Among the Language Arts," Elementary School Journal, 48, June 1948, 538-549.

[3] F. Goodenough, "The Reading Tests of the Stanford Achievement Scale and Other Variables," Journal Educational Psychology, 161, November 1925, 523-531.

[4] W.E. Young, "Relation of Reading Comprehension and Retention to Hearing Comprehension and Retention," Journal Experimental Education, 5, September 1936, 30-39.

[5] C. Martin, "Developmental Interrelationships Among Language Variables in Children of First Grade," Elementary English, March 1955, 167-171.

The Importance of Meaning in Reading

The evidence seems to point to the importance of knowledge of the meaning of words as a prerequisite for reading comprehension and achievement. Reading is itself a means of developing vocabulary, but there must be a strong enough toe-hold in word knowledge before reading can be used profitably for further vocabulary growth. In the 1920's Dolch[1] who was concerned with vocabulary for reading texts gave serious attention to this matter of meaning, pointing to the fact that so many English words sound alike but mean different things, that children can be confused. Lorge[2] found that the assumption that words of high frequency are readily understood is erroneous. In 1937 Looby[3] found that the sixth grade children she studied understood only slightly more than 60% of the words encountered in their texts. Dale's study of words known to fourth grade indicated that scores differed sharply for different meanings of the same word.[4] Sanderson[5] found that many children lack adequate understanding of words met in their informational reading.

---

[1] C. Alden, H.B. Sullivan, D.O. Durrell, "Frequency of Special Reading Disabilities," Education, 62, September 1941, 32-36.

[2] E. Betts, "Interrelationship of Reading and Spelling," Elementary English Review 22, January 1945, 12-23.

[3] A. Harris, How to Increase Reading Ability, New York: Longman's Green & Company, 1947.

[4] V. McClaren, "Socio-Economic Status and Reading Ability," A Study in Infant Reading," Studies in Reading, v. 2 , Scottish Council for Research in Education, London: University of London press, Ltd., 1950.

---

[1] E. Dolch, *Reading and Word Meanings*, New York: Ginn and Company, 1927.

[2] I. Lorge, "The English Semantic Count," *Teachers College Record*, 39, October 1937, 65-77.

[3] R. Looby, "Understandings Children Derive from their Reading," *Elementary English Review*, 16, February 1939, 58-62.

[4] E. Dale, *Children's Knowledge of Words*, Bureau of Educational Research and Service, Ohio State University, 1960.

[5] M. Sanderson, "An Experiment in the Development of Meaning Vocabularies," *Studies and Summaries*, 31-35, prepared by Hugh S. Bonar, Manitowac, Wisconsin Public Schools, 1941, as quoted in M.C. Serra, "How to Develop Concepts and Their Verbal Representations," *Elementary School Journal*, January 1953, 280.

McKee[1] states, on the basis of research by Ayer, Horn, Harrison, Dolch and Dewey:

> At every grade level in the elementary school, children are frequently unable to achieve meaning because of the presence of unfamiliar concepts in the material to be read. Technical terms are a source of difficulty... figurative language is particularly misleading. Much difficulty is caused by the child's lack of familiarity with concepts referring to such matters as time, space, quantity, latitude and longitude. . . . Most startling however is the difficulty caused by lack of familiarity with the various and particular meanings of given word forms, many of which, such as _get_, _run_, _aside_, and _with_ are so well known to the teacher that the child's limitations are overlooked.

Figurel[2] found in his study of underprivileged children that such children had considerably less understanding than more favored ones.

Bradley, Cahill and Tate[3] found that with fifth to eighth grade pupils the clarification of meaning was an important factor in the development of a reading vocabulary. Hildreth[4] showed that printed words most easily learned by beginning readers were those in the child's everyday conversation, namely the familiar, or known, words. "Meanings, concepts, sound associations and emotional connotations appear to be more potent in word-learning than is the configuration of a word or some characteristic feature alone.[1]

---

[1] F. McKee, "Vocabulary Development," Chapter 9, _The Teaching of Reading_, Thirty-sixth Year Book, Part I, National Society for the Study of Education, 1937, 282.

[2] A.J. Figurel, "The Vocabulary of Underprivileged Children," Unpublished Doctoral Dissertation, Pittsburgh: University of Pittsburgh, 1948, 242 pp.

[3] M. Bradley, L. Cahill, and H. Tate, "Acquisition of a Reading Vocabulary," _Elementary English Review_, 18, January 1941, 32, 19-21.

[4] G. Hildreth, "An Individual Study in Word Recognition," _Elementary School Journal_, 35, April 1935, 606-619.

Horn's[2] chapter, "Language and Meaning," referred to earlier, sums up the theoretical position on the relation between language and meaning in children's learning:

> Language and thought are inter-related; meaning and symbolizing are to be regarded as two aspects of the same unified process ... The effective use of language should constitute one of the principal objectives of instruction ... Improvement will come, in this respect, not so much from formal exercises as from the constant use of language in relation to the experiences and purposes which give it meaning.[3] The important thing is -- whether the reader can be expected to identify the particular meaning of the word in the context in which it is used.[4]

Much has been written on the subject of meaning, from Ogden's[5] early philosophical work on the Meaning of Meaning through Whorf's[6] anthropological view on language to Church's[7] Language and the Discovery of Reality and Vygotsky's[8] Thought and Language, both psychological. Popular interest has also been shown in Sylvia Ashton-Warner's[1] book about a teacher's work with Maori children in New Zealand which was based on meaning of words used in reading. An extensive coverage of such works need not be handled here. The implications for methods of solving the educational problem of inadequate language strength will however be dealt with.

---

[1] G. Hildreth, "*Readiness for School Beginners*, New York: World Book Company, 1950, 616.

[2] E. Horn, "Language and Meaning," Chapter 11, *The Psychology of Learning*, Forty-first Yearbook, Part II, National Society for the Study of Education, N.B. Henry (ed.), Bloomington, Indiana, 1942, 381-382.

[3] *Ibid*. 391.

[4] *Ibid*, 398

[5] C.K. Ogden, I.A. Richards, *The Meaning of Meaning*, New York: Harcourt, Brace & Company, 1930.

[6] B. Whorf, Language, *Thought and Reality*, New York: John Wiley and Sons, 1956.

[7] J. Church, *Language and the Discovery of Reality*, New York: Random House, 1962.

[8] L.S. Vygotsky, *Thought and Language*, New York: John Wiley and Sons, 1962.

Almy's[2] study of pre-reading experiences, while not focused on language, uncovered the fact that the flow of words heard in being read to before a child can talk or read seems significant in readiness for reading. Irwin[3] tested the effectiveness of language environment by having an experimental group of working class mothers read to their one year old children for ten minutes a day. He was able to measure significant differences in language between the experimental and control groups when the children were twenty months old. In a study of successful readers, Keshian[4] found that of the seventy-two children involved, fifty-six were read to regularly when they were young, and sixteen only on occasion. This meant that all were read to, and the majority on a sustained basis. Plessas and Oakes in a study of forty first graders who were reading on entry found that all had a history of being read to, and the group crossed socio-economic lines.[1] Sheldon and Carillo's[2] study, like Milner's,[3] showed that the readers come from reading homes, which generally means higher educational level, and greater exposure to language used in books.

---

[1] S. Ashton-Warner, *Teacher*, New York: Simon and Shuster, 1963.

[2] M. Almy, *Children's Experiences Prior to First Grade and Success in Beginning Reading*, Contributions to Education, No. 954, New York: Bureau of Publications, Teachers College, Columbia University, 1949.

[3] O.C. Irwin, "Infant Speech: Effect of Systematic Reading of Stories," *Journal of Speech, Hearing Disorders*, 3, June 1960, 187-190.

[4] J. Keshian, "Experiences and Personality Traits Common to Children Who Succeed in Reading," unpublished Doctoral Dissertation, New York: New York University, 1960, 124 pp.

Mary Serra[4] was concerned with the relationship between concept formation and language experience, and summarized the findings concerning direct experience on concept development and vocabulary enlargement. She quotes Osburn, Huntington and Meeks,[5] "Experience with pictures, illustrations, models and the like should be used to make concrete the relationships implied in language," and concludes that "Vocabulary is increased by 1) experience with the raw materials of the concepts for which given words are symbols.... and 2) experience with the given word itself, i.e., hearing the word, speaking the word, and reading and writing it.... experience with the word associates word and concept."[6]

---

[1] G. Plessas and C. Oakes, "Pre-Reading Experiences of Selected Early Readers," *Reading Teacher*, January 1964, 241-245

[2] W. Sheldon and L. Carillo, "Relation of Parents, Home, and Children's Reading, "*Elementary School Journal*," 52; 5, January 1952, 262-270.

[3] E. Milner, "A Study of the Relationship Between Reading Readiness in Grade One School children and Patterns of Parent-Child Interaction," *Child Development*, 22, 1951, 95-112.

[4] M.C. Serra, "How to Develop Concepts and Their Verbal Representations, "*Elementary School Journal*, 53, January 1953, 275-285.

[5] W.S. Osburn, M. Huntington, and V. Meeks, "The Language of Relativity as Related to Reading Readiness," *Journal of Educational Research*, 39, April 1946, 583-601. As quoted in Serra., *op.cit.*, p276.

[6] *Ibid.*, 277.

Liddell[1] investigated the relative effectiveness of four methods of teaching word meanings, and found that "telling" is the most effective, learning the word in context was next, pictures next, and the dictionary least effective. Class discussion under teacher direction is the most effective method of vocabulary drill.

Helen C. Dawe's[2] study in 1942 was specifically directed towards measuring the effect on children's language and mental development of a planned educational program. She was concerned with strengthening the understanding of words and concepts, and she carried out her purposes by having the children look at and discuss pictures, listen to stories and poems, go on short excursions, and hear explanations of all and any not-understood words encountered. The program, done with four year olds over week-ends and lasting ninety-two days, gave each child an average of fifty hours of attention, in groups and individually. On Form L of the New Revised Stanford-Binet, the experimental group gained fourteen points in I.Q. scores, and the control group lost two. On the Smith-Williams Vocabulary Test, both groups made significant gains, but the experimental groups gained 17.5 points to 10 points for the control group. The mean difference in size of change was significant at the .01 level.

---

[1] G.L. Liddell, "An Experimental Investigation of Methods of Teaching Word Meanings," Unpublished Masters Thesis, University of Southern California, 1931, as quoted in M. Serra, *op.cit*.278.

[2] H.C. Dawe, "A Study of the Effect of an Educational Program Upon Language Development and Related Mental Functions in Young Children," *Journal Experimental Education*, v. 2, December 1942, 200-209.

Paterra's[1] study of the scattergrams of retarded readers concludes that the consistently low vocabulary indicates a need to apply more consistently the principles of vocabulary development throughout the reading and language instructional programs. She concludes that instruction in vocabulary should be through verbal reasoning rather than through independent vocabulary dependent upon the skill of memorizing.

Gray and Holmes[2] studied the development of meaning vocabularies with fourth graders, and concluded that specific, direct help in developing meaning brings greater vocabulary growth than incidental learning of meaning. They felt, further, that specific guidance in vocabulary is of particular value with pupils of limited initial achievement.

Vocabulary Analyses and Tabulation

There have been many studies of children's vocabularies, approached in a variety of ways. Some have been purely quantitative, seeking to establish norms among groups of the same age level; others have sought to define qualitative differences dependent on maturation and/or opportunity. The lists themselves were developed out of differing motivations.

---

[1] M.E. Paterra, "A Study of Thirty-three WISC Scattergrams of Retarded Readers," Elementary English, April 1963, 394-405.

[2] W. Gray and E. Holmes, The Development of Meaning Vocabularies in Reading, Publication of the Laboratory Schools of the University of Chicago, 1946, Chicago: University of Chicago Press, 1938.

3

Some investigators sought only a record of oral language, others to bring order into oral language so that graded lists of words could be adapted to more efficient methods of teaching reading or spelling. Because of the different methods used to count the separate words, and the different criteria for crediting a child with knowledge of a given word, there are ambiguities in the interpretation of normative findings regarding vocabulary growth.

In reviewing the research in vocabulary development in 1946, Seegers[1] took the view that, "whether words are on lists or not has little bearing upon the thinking of children whose experiences go beyond lists." He did not feel that any list could possibly constitute all words children know, nor should any list be taught as though it and it alone were to be the definitive vocabulary in children's learning. Lists then can be accepted only as a gross measure, and no more.

Of the quantitative listings, the best known children's vocabulary lists are those of Horn,[2] which combines a number of studies of words used by children six years old and younger, the International Kindergarten Union List,[3] compiled from records of pre-school children's speech. Thorndike's[4] list compiled from juvenile literature, a general semantic count and a magazine count, and Rinsland's[1], developed from one million running words of children's own writing. Additional important studies were done by M.E. Smith[2] and M.K. Smith[3] which led to greater understanding of the growth of vocabulary and language in general, but did not materialize into commonly used lists for reference. Buckingham and Dolch[4] developed a graded vocabulary of 9,520 words as a basic vocabulary of elementary school children, secured by free association. Gates[5] developed a reading vocabulary for the primary grades; and Dale's[6] is a list of words familiar to elementary grade children.

---

[1] J.C. Seegers, "Recent Research in Vocabulary Development," Elementary English, 23, February 1946, 61-68.

[2] E. Horn, "Children's Spoken Vocabulary," in report of the National Committee on Reading, 24th Yearbook NSSE, Part I, 1925.

[3] International Kindergarten Union - "Study of Vocabulary of Children Before Entering First Grade, Washington 1928.

[4] E.L. Thorndike, J. Lorge, A Teacher's Word Book of 30,000 Words. New York: Bureau of Publications, Teachers College, Columbia University, 1944.

Another, and in some instances overlapping set of investigators showed concern for the structural progression in language development, and tabulated their findings to show this.

---

[1] H. Rinsland, *Basic Vocabulary of Elementary School Children*, New York, Macmillan, 1947.

[2] M.E. Smith, An Investigation of the Development of the Sentence and the Extent of Vocabulary in Young Children. University of Iowa Studies in Child Welfare, No. 5, 1926.

[3] M.K. Smith, "Measurement of the Size of General English Vocabulary through the Elementary Grades and High School," *Genetic Psychological Monograph*, 24, 1941, 311-345.

[4] B. R. Buckingham, and E. Dolch, *A Combined Word List*, New York: Ginn and Company, 1936.

[5] A. Gates, *A Reading Vocabulary for the Primary Grades*, rev., New York: Bureau of Publications, Teachers College, Columbia University, 1935.

[6] E. Dale, *Children's Knowledge of Words*, Ohio: Bureau of Educational Research and Service, the Ohio State University, 1960

McCarthy[1] and Shirley[2] found that nouns appear first in children's language, followed by action verbs, adjectives, adverbs and finally pronouns. According to McCarthy, connectives are the last parts of speech to appear, presumably because they presuppose some appreciation of the relationships between ideas. Marie Hughes and Vivian Cox,[3] in studying the language of first grade children, found that at first grade level the use of verbs in a variety of forms could be considered an index of maturity, and the relational words another such index. Other studies indicate that although regular verb forms are learned early, irregular forms continue to give primary children difficulty.[4] Proportional relationships of types of words to each other are apparently fairly stable for age,[5] except that underprivileged children seem to use a higher proportion of name words.[6] Several structural analyses of language in older children have been done, notably by Strickland[1] and by Loban[2] which indicate that development at the older elementary levels is in degree of complexity built into the basic structure used by all speakers of the same language.

---

[1] D. McCarthy, Language Development of Pre-School Children, Minneapolis: University of Minnesota Press, 1930

[2] M. Shirley, "Common Content in the Speech of Pre-School Children," Child Development, 9, December 1938, 333-346.

[3] M. Hughes and V. Cox, "The Language of First Grade Children," Elementary English, 26, 1949, 373-80.

[4] J. Berko, "The Child's Learning of English Morphology," Word, 14, 1958, 150-77.

[5] G. Murphy, L. Murphy, and T. Newcomb, Experimental Social Psychology, rev. ed., 1937, 581.

[6] S.H. Ervin and W. Miller, "Language Development," Chapter 3, Sixty-second Year Book, National Society for the Study of Education, 1963.

Although quantity appears to be one index to quality of language, it is not a stable one. Figurel,[3] in comparing the number of words he found among underprivileged children with Thorndike's and Rinsland's lists, found that Thorndike predicted a vocabulary three and one-half times as great as Figurel found, and Rinsland's vocabulary was twice as great. When the method of tabulation was equated in the two studies, the ratio of deficiency on the Thorndike and Rinsland lists was about the same. However, Figurel himself used a free association test in two privileged schools as controls for his study of underprivileged children's vocabulary, and discovered that the privileged children had few more words on the average than his experimental group. The kinds of words were different, however, so that while one might say the children did not know words expected of them, they did have words in quantity.

In comparing the vocabulary of underprivileged second graders with other vocabulary measures, Figurel found deficiency again.

---

[1] R. Strickland, The Language of Elementary Schoolchildren: Its Relationship to the Language of Reading Text-Books and the Quality of Reading of Selected Children, Bulletin of the School of Education, Indiana University, v.138, No. 4, July 1962.

[2] W. Loban, U.S. Office of Education, Study of Language Development, "Language Ability in the Middle Grades of the Elementary School, Berkeley: University of California, Department of Education, 1962.

[3] J. Figurel, "The Vocabulary of Underprivileged Children," Unpublished Doctoral Dissertation, University of Pittsburgh, 1948, 242 pp.

> Of the total number of words known, 882, or 86 percent, are listed in the pre-school list. Seventy-five percent of the words are in the Gates list of words for primary grades, 78 percent are included in Thorndike's first two thousand words. Sixty-one words are not in the Horn list, and fifty-nine of them are not in the Rinsland list of basic vocabulary for this grade. Only twelve words place higher than the third thousand in the Rinsland study. All but 130, or 87 percent of the words are listed in Dolch's 2000 most common words. Fifty-one percent of the words in Basic English are found in the second-grade vocabulary of underprivileged children.[1]

Quality of language, then, cannot be evaluated in purely quantitative terms, and the effort to determine what is qualitatively superior has taken several paths. Figurel broke his words down into categories, and showed the difference in terms used within similar categories, a difference that seems to follow the hierarchy proposed by Dolch[2] in 1927, when he did a study on reading and word meaning. Dolch divided words into the following levels of difficulty for children:

1. literary or poetic equivalents of words, such as abhor, bestow, bewilder, cease

2. words from adult occupations and affairs, such as attorney, batten, ambassador

3. words that may be familiar to children of one locality, such as arroyo, bayberry, antlers, amidships

---

[1] Ibid, 21-22.

[2] E. Dolch, Reading and Word Meaning, New York: Ginn and Company, 1927.

4. words which act as symbols for abstractions or generalizations, such as aspiring, circumstances, advantage.

Another approach was taken by Feifel and Lorge,[1] who categorized the verbatim responses of 900 children to questions about vocabulary, and found definite levels of maturity related to meaning in definition. The younger, more than the older children, defined words in concrete terms. Words symbolizing abstractions were considered evidence of high language maturity. (This coincides with Dolch's highest level of difficulty) In support of a developmental progression from concreteness to abstraction in language, Russell and Saadeh[2] found a decrease in concreteness of language with grade, the mean going from 12.81 at grade three, to 5.46 at grade six, to 2.96 at grade nine. Conversely, abstractions increased from a mean of 9.16 at grade three to 16.09 at grade six, to 19.02 at grade nine. These studies indicate that quality in language is associated with a general maturation that includes specific growth toward ability to deal with abstractions.

On the other hand, quality definitely seems related to opportunity for expansion of experience. As early as 1915, Drever[3] noted, "Expansion of a child's environment always tends to increase nouns relative to other parts of speech. Bean[1] in 1932 noted that periods of rapid increase in vocabulary coincide with a child's experience through travel. Werbois,[2] in comparing the language of one room rural school children with those in consolidated schools matched for I.Q., age, home cultural index, and mid-parent education, found significant differences in the Binet vocabulary tests in favor of the consolidated school, where the teachers were better educated.

---

[1] H. Feifel and I. Lorge, "Qualitative Differences in the Vocabulary Responses of Children," Journal Educational Psychology 41, 1950, 1-18.

[2] D. Russell, D. and Q. Saadeh, "Qualitative Levels in Children's Vocabulary," Journal Educational Psychology, 53, August 1962, 170-174.

[3] J. Drever, as cited in D. McCarthy, "Language Development in Children," in Carmichael, (ed.) Manual of Child Psychology, Ed.2, New York: John Wiley & Sons, 1954, 587.

Quality in language is relative, subject to maturation, clearly affected by environment. Witty and La Brant[3] quote Kilpatrick: "Vocabulary represents in a condensed and symbolic form all that one has experienced and imagined. The breadth of one's mental experience is indicated therefore by the number of words that have for him a meaning."

Tabulation Procedures

The technique of free association has not been widely used in vocabulary research. McCarthy refers to two such investigations, one by Dolch[4] in 1927, the other by Prescott[5] in 1929. Figurel used it in 1958.[1] However, in 1940, Tinker, Hackner and Wesley,[2] found that by comparing responses on free association tests with more conventional vocabulary tests, they were actually measuring specific vocabulary knowledge. A significant but not high correlation was found when the vocabulary items measured were different; but when the items on the free association test and the vocabulary test were identical, the correlation was .83. These investigators also found a relationship between speed of association and extent of word knowledge. This association can be seen to have a relationship to findings on retention and comprehension.[3] There is much in the literature of educational psychology which indicates that meaningful material is better retained than that which is meaningless. In a free association vocabulary test, therefore, children can be presumed to draw upon their backlog of meaningful vocabulary. Among young children there may be certain limitations when the test is not an oral one, owing to the as yet awkward use of writing and spelling, but there is an interesting round-about connection here. Young children are likely to be impressed by words they have recently learned to spell, since spelling is a new skill in the second grade.

---

[1] C. Bean, Ibid. 587

[2] G.M. Werbois, "Language Development in Two Different Rural Environments," Child Development, 13, 1942, 175-80.

[3] P. Witty, and L. LaBrant, "Vocabulary and Reading," School and Society, 31, 1930, 268-272.

[4] E. Dolch, as cited in D. McCarthy, op. cit., p535.

[5] Ibid.

---

[1] J.A. Figurel, The Vocabulary of Underprivileged Children, Unpublished Doctoral Dissertation, University of Pittsburgh, 1948, 242 pp.

[2] M.A. Tinker, F. Hackner and M.W. Wesley, "Speed and Quality of Association as a Measure of Vocabulary Knowledge," Journal Educational Psychology, 31, 1940, 575-582.

[3] W.E. Young, "Relation of Reading Comprehension and Retention to Hearing Comprehension and Retention," Journal of Experimental Education, 5, September 1936, 30-39.

We can expect the vocabulary lists of the children in this study to include words from the required spelling lessons, as was shown to be true in the pilot study conducted by the investigator.

Word counts are based on a method of classifying words that considers lexical units (nouns, verbs, adjectives, certain adverbs), inflection (plurals, comparatives, superlatives, forms of verbs, irregular verbs), and functional words (conjunctions, prepositions, auxiliaries, suffixes). At the same time, consideration of developmental factors must be brought to bear on what shall and shall not be counted. For example, Ervin and Miller[1] indicate, as did Berko,[2] and Hughes and Cox[3], that irregularities in inflection are still uncertain as late as six years of age. Hughes and Cox also found that "The derived form of a word offers as much difficulty (in recognition) as the root word... For young children learning language, the proper use of plurals and verb forms can be considered an index of the maturity of speech attained by them." Hughes and Cox in their study therefore included in the count all words except proper names of people and places, and words denoting special sounds or special actions made by objects and animals. Ervin and Miller agree that different forms of the same word can be interpreted as vocabulary learning at this age and stage. These studies influenced the data collection of this investigation in the portion that is concerned with sheer quantitative count.

---

[1] S.M. Ervin and W. R. Miller, "Language Development," Chapter 3, Sixty-second Yearbook, National Society for the Study of Education, 1963.

[2] J. Berko, "The Child's Learning of English Morphology," Word, 14, 1958, 150-77.

[3] M. Hughes and V. Cox, "The Language of First Grade Children," Elementary English, 26, 1949, 373-80.

Figurel,[1] whose study included children from second through sixth grade, chose to use the lexical unit as Thorndike did, and did not make separate entries for plurals in s, plurals where y is replaced by ies, adverbs formed by adding ly, superlatives formed by adding er, est, or r and st, verb forms ending in s, d, ed, and ing. Nor did he allow contractions, abbreviations, or cardinal numbers. For the particular purposes of this study, and this age group, the lexical unit is too restrictive a measure.

Tabulating for quality has offered other difficulties. A pilot study conducted by this investigator shows the impossibility of using lexical units as clues to meaning, because of the ambiguity of interpretation of individual words out of context. Such words as plant, show, blossom, brush, mean, trick, crack are examples of words that appeared on the children's papers and which can be interpreted as nouns or verbs. The most useful guide to quality, therefore, seemed to be the Rinsland graded list, because Rinsland developed it out of the writing of children in the belief that children would only use words they understood. As the most recent of children's vocabulary lists (except for Figurel's), it is most closely related to current vocabulary, although many words of the space age that appear in the ordinary vocabulary of young children today, are not present in a list published in 1947. Nevertheless, the Rinsland list does offer a gross estimate of qualitative levels of usage if one accepts as a measure of quality the frequency with which children of different grades at school use different words.

---

[1] J.A. Figurel, op. cit.

CHAPTER IV

METHODOLOGY

Procedure and Collection of Data

The Setting

Seven elementary schools in New York City provided the setting for this research. All seven were designated by the New York City Board of Education as Special Service schools, i.e. schools in which the problems of poverty, academic retardation and undisciplined behavior were serious enough to warrant special services to the school. All seven were located in low-income areas of the city, and drew their pupils from slum-type housing near the school and from low-income housing projects. Permission to work in these schools was obtained from the Board of Education and from the individual principals involved, all of whom expressed strong interest in the goals of the research.

The Population

The research was focused on children at the start of their school careers, but since children in low-income areas tend to be somewhat less mature in respect to school expectation than their middle-class counterparts, second grade seemed a more likely time than first to expect measurable responses to skill learning. In addition, the design of the study required that children have acquired sufficient skill in reading and writing to be able to handle the group tests being used. Five hundred and eighty second grade children in twenty classes in seven schools were tested at the beginning of the research. Of these, two hundred and eighty-five yielded post-test data. The loss was due in part to the predicted rate of transiency, and in part to the high rate of absence among the children, especially among the slower classes. In addition, changes in research conditions within the school automatically eliminated four of the twenty classes.

Of the final two hundred and eighty-five children, the number tested in any one sub-test was as low as two hundred and forty-eight, and as high as two hundred and sixty, distributed in nine experimental and seven control classes in the seven schools. In all classes, despite the transiency, a minimum of at least ten children remained as the core of the original class. All children fell into the accepted age range for second grade in New York City, turning seven at any time between January 1st and December 31st of the year they entered second grade, September 1964. Boys and girls were about equally divided in the experimental and control groups. All hold-overs were eliminated, and there were no known cases of mental retardation. Classes used in the research were drawn from the top, middle and bottom segments of the grade, an evaluative designation commonly used in the New York City public schools where homogeneous grouping based on reading achievement or readiness was in effect at the time. Although I.Q. scores were not used in accordance with restrictions imposed by the New York City Board of Education it is presumed that normal distribution was achieved by using classes from the top, middle and bottom segments of the grade. Scores on the Metropolitan Achievement Test in Reading correlated low positive with position on the grade in October, and .7 in June. The population of all the schools included a range of thirty to forty-five percent Puerto Rican, forty to fifty-five percent Negro children, and the rest white. The number of non-English speaking children proved to be negligible, nine altogether in both experimental and control groups, apparently because of a change in population trends. The Puerto Rican children were considered to be bi-lingual, however, by the schools.

TABLE I

POPULATION DISTRIBUTION BY ETHNIC AND RACIAL COMPOSITION

	Boys	Girls	P.R.	Negro	Others
Experimental N=155	71	84	30-45%	40-55%	10-15%
Control N=130	64	66	30-45%	40-55%	10-15%
Total	135	150	30-45%	40-55%	10-15%

Age Range of both groups - 6 yrs. 9 mo. - 7 yrs. 9 mo.

3. Research Personnel

Testing was conducted by the investigator and a number of trained assistants, all of whom were graduate students or beginning teachers. The experimental variable, regular story reading, was introduced and maintained by the teachers of the experimental classes, all of whom were regularly licensed teachers of the New York City Board of Education with at least one year of teaching experience behind them at the start of the study. They were selected by the principals in response to the investigator's request for teachers of average competency, and were unknown to the investigator prior to the research.

TABLE II

YEARS OF EXPERIENCE OF
PARTICIPATING TEACHERS

Experimental Teachers	Years of Experience	Control Teachers
1	10	1
	9	
	8	
	7	
	6	1
11	5	
11	4	1
11	3	111
11	2	1
N = 9		N= 7

4. Establishing the Experimental and Control Groups

Schools already designated by the New York City Board of Education as schools needful of special services because of the learning and behavior problems of children of low socioeconomic background were chosen by the investigator as suitable schools for research in the learning problems of disadvantaged children. Each principal of ten schools in three school districts was asked for permision to conduct the research in his school. Seven principals were able to accomodate the research project. Each of these seven schools was evaluated as to its transiency rate in order to safeguard the stability of the research population. Each school was classified as High, Moderate or Low Transtiency based on school records for the previous year and on such anticipated changes in the community for the year of the study as completion of housing projects or slum clearance. Each principal was then asked to estimate the ethnic and racial composition of his school to the best of his knowledge and ability. Principals were also asked to indicate which classes on the second grade could be made available to the investigator, and which position each of these classes had on the grade. Homogeneous grouping was in effect in these schools at the time of this research, and designations for each class such as Top, Next to Top, Middle Average, Middle Slow, Slow and Slowest had been made unrelated to this research according to the judgment of the teachers and assistant principal as to the children's general readiness and the degree of reading level attained in a basal reading series. Principals were further asked to confirm the fact that teachers would be teaching reading by a basal series method in order to keep reading method constant, and that each teacher of a class under consideration had had at least one year of experience prior to the year in which the research took place.

Thirty-two classes for which information was available on transiency, ethnic and racial composition, position on the grade, teacher experience and method of reading, were then sorted for matching on the above criteria, and twenty of the thirty-two classes fell into two groups in which classes were matched as to transiency, racial and ethnic composition, position on the grade, teacher experience, reading method, age range and sex distribution of the children. The previous years's planbooks of these twenty teachers were examined to ascertain whether these teachers made a practice of reading to their children. No teacher indicated daily or even frequent reading of stories. When the item "story reading" appeared in the planbook, it was in connection with a unit study or a holiday. This corroborated the investigator's observations and informal questioning of a general absence of story reading at this grade level.

A decision to establish experimental and control classes in separate schools was made as a result of the realistic probability that teachers on the same grade level in a school were likely to share experiences, and the experimental variable of story-reading was too easy to imitate. Separating the control and experimental classes, therefore, was a necessity to avoid contamination.

The two matched groups of ten classes each had four classes which were at the top or next to the top of the grade, three classes which were average or in the middle of the grade, and three which were slow classes, including one in each group which was the very slowest of the grade. These general classifications were used to insure a spread of ability and achievement within the experimental and control groups. A coin was flipped to determine the selection of the experimental and control groups on a random basis. Each school was then given a code number according to a formula invented for the purpose. Each experimental school was known by the number of experimental classes and the letter E. Experimental schools became 1E, 4E, 5E. Control schools' own numerical designations, e.g., Public School 1, were translated into a letter of the alphabet on a formula basis known only to the investigator to protect the privacy of the data, and the letter C added. The control schools were thus known as CBC, BIC, FGC, DFC. Each class retained its own school designation, which varied from school to school even for the same placement on the grade. All data for every child had the school and class code, and the individual child's code number on it. Teachers were asked to indicate which of the children were hold-overs, and which were non-English speaking, and this information was recorded for each child. Hold-overs and over-age children were eliminated from the study.

In the course of the research project, the study population decreased for several reasons beyond the control of the investigator. Four top classes were eliminated, two because their teachers introduced individualized reading, a third because the test scores were lost, and a fourth because the original teacher left and was replaced by a substitute without a full year of experience. The final experimental and control groups from which data were obtained appears in Table III below.

TABLE III

CLASSES IN EXPERIMENTAL AND CONTROL GROUPS FROM WHICH DATA WERE OBTAINED, SHOWING TRANSIENCY, POSITION ON THE GRADE, AND NUMBER OF CHILDREN

EXPERIMENTAL School	Class	N		CONTROL School	Class	N
			TOP CLASSES			
*** 4E:	2-7	24		**CBC:	2-201	27
* 1E:	2-1	24		*FGC:	2-219	22
			MIDDLE CLASSES			
*** 4E:	2-5	16		***BIGC:	2-205	19
*** 4E:	2-6	18		***BIGC:	2-202	17
** 5E:	2-8	20				
** 5E:	2-7	22				
			LOW CLASSES			
*** 4E:	2-2	10		***BIGC2:	210	13
** 5E:	2-1	11		**CBC:	2-205	18
** 5E:	2-2	10		*DFC:	2-223	14
Total		155				130

***high transiency **moderate transiency * low transiency

Materials and Methods for the Special Program

The Books (Appendix I,II)

Fifty books for the teachers to read to the children every day were placed in each experimental classroom, set up so as to be accessible to the children for browsing as well as to the teacher for reading aloud. The books were chosen according to the presence in literary form of definite and specific criteria based on 1) observation of the comprehension range of young children as we study their growth and development in our culture, 2) the role of children's feelings and attitudes in the learning process, and 3) the background of language experience among disadvantaged children. These considerations have been elaborated in Chapter II. They were incorporated into the following criteria offered to the four judges who validated the book selection.

Criteria for Selection of Books to be Read to Experimental Classes

a) Events, concepts and relationships had to be within the scope of young children's conceptual grasp. The stories had to deal with the universal in childhood experience regardless of class and ethnic variation. Stories were of the here-and-now, realistic type, but not primarily informational in intent, nor necessarily familiar in detail. Language, plot, and character had to enhance a story that is pleasurable and interesting to a young child of about seven. Since the children of this study were assumed to be linguistically unsophisticated and limited in general range of experience, books were geared to a somewhat younger level of maturity than might be selected for middle class seven year olds. This meant that while the basic plot would interest all seven year olds, degree of complexity and length of story were more suitable to children younger than seven.

b) The stories had to allow for emotional identification with characters, aspirations, fears, mishaps or other feelings and adventures within the range of childhood experience, such as occur regardless of class, and to an extent regardless of cultural specificity.

c) The stories had to be written in language which flows naturally and best conveys the precise idea or colorful image to the juvenile listener. Language was not to be confined to a single grammatical structure nor a fixed sentence length. Sentence length and complexity were to be intrinsically related to the theme and character of the story, but not of such length and complexity that a young child could not follow the development of the thought from the beginning to the end of the sentence. There were no limitations on vocabulary, either of type of word or number of syllables. All vocabulary likely to be unfamiliar to the children was to be so used in the story that meaning could be readily inferred from the context, illustrations, or explanation by the teacher. The language was to reflect the concrete and sensory in experience rather than abstractions or difficult time-space relationships.

Application of Criteria

The above criteria were used by the investigator to evaluate books recommended for literary merit by Bowker's Best Books for Children 1963, The Children's Bookshelf prepared by Child Study Association 1962, Books for Children prepared by the faculty of Bank Street College of Education, and books on the shelves of children's public libraries in different communities. A preliminary list of one hundred titles was made up by the investigator and submitted to the following four judges, each of whom had had professional experience in selecting books to read to culturally deprived children:

Mrs. Augusta Baker	Chief Librarian, Children's Room, 42nd Street, N.Y. Public Library
Dr. Claudia Lewis	Writer-teacher, Bank Street College of Education, New York City
Miss Rhoda Plummer	Senior Librarian, 42nd Street Children's Library, N.Y. Public Library
Mrs. Clara Jackson	Assistant Professor of Library Science, Kent State University, Kent, Ohio

Each of the judges checked those titles on the preliminary list that seemed likely to be understood and enjoyed by children of limited verbal opportunity and general experience. Two agreements by the judges, when added to the investigator's, were deemed sufficient for validation. From these composite opinions fifty titles were selected, the books purchased and placed in each experimental classroom.

Three of the judges were asked to indicate by the numbers one, two, three the level of difficulty of each book according to length, complexity of plot and language. The final fifty books given to the teachers were categorized in these sub-groups of difficulty, and each book so labelled for the teacher's information.

Teacher Preparation

A Manual of Accompanying Activities (Appendix III)

Each experimental teacher was given a manual of story reading techniques and suggested activities for strengthening understanding of the story. Discussion, dramatization, additional reading on the theme, illustrative material other than what is in the book, children's own illustrations, explanation by the teacher of words and references, follow-up activities appropriate to the story such as a trip, construction, letter writing, crafts or whatever else lends itself to enhancement of comprehension,

> were among the suggestions meant to insure a variety of approaches to comprehension.
>
> The Teacher's Role
>
> Teachers were asked to read a story every day of the school year from the books given to them by the investigator. They were urged to read the stories with attention to phrasing, dramatic quality in the voice, pace, and knowledge of the story before reading. (Appendix III) They were also asked to choose a suitable follow-up activity from the types suggested in the manual, check the date on which the story was read and indicate the type of activity on a specially prepared calendar pasted in the back of each book. (Appendix IV) They were asked to introduce books in the order of increasing difficulty, indicated by the number 1, 2, 3 next to each title. Once introduced, a book could be read as often as the teacher or the class desired. Teachers in the control group proceeded as usual, with stories an occasional treat, if read at all, and not chosen according to the specific criteria indicated for the experimental group.

Once the special program was under way, the investigator visited the experimental teachers once a month for the balance of the school year. These meetings were held with all the experimental teachers in a school to begin with, but soon shifted to individual meetings with each teacher at her convenience. The investigator did not visit classes at first in order to avoid any discomfort among the teachers. During the monthly meetings teachers were asked to indicate which stories the children liked best, which stories they did not enjoy, to report on any response by the children to a story reading or to the book itself, to recall questions or comments the children made that referred back to the books, describe approaches taken by the teacher to heighten comprehension, and any other avenue of exploration that seemed suitable at the time. In turn, the teachers were free to ask anything about their procedure in the story-reading program, since the guide lines to them had been deliberately vague, i.e., "Enjoy the story. Help the children understand words and concepts without destroying the pleasure." The teachers' questions reflected their anxiety about a relatively unstructured teaching technique, as well as their concern for doing "the right thing" for the research. The original criteria of enjoyment and comprehension were presented to them again and again, and they were urged to test their techniques against these criteria. The conferenceswith the teachers were non-judgmental in tone, avoided reference to other aspects of the teacher's curriculum, and were held to assure that the teachers would read to the children every day. The conferences also made it possible to examine the teachers' responses to a technique that was flexible and unstructured, allowing for individual variation in performance. Any formal techniques they suggested for evaluating the childrens' comprehension, such as book reports, competitive activities or tests, were disallowed.

After the program had run for several months, the investigator asked for and received permission to observe the story-reading in the experimental classes. Thus the investigator was able to observe the teachers' reading techniques and the responses of the children to the stories, as a check on the teachers' own perceptions of what was occurring. Since the control classes were not being read to on a regular basis, they were not visited for this purpose. In order to observe directly the responses of the slowest children to their reading lessons, the Low control classes were observed once during a formal reading lesson. These observations corroborated the statements of the control teachers of the Low classes concerning the resistance of the children to learning to read. Other than this, contact with the control classes was not maintained during the period between the first and last testing sessions. While all teachers in the project had been given a general briefing on the need for answers to the learning problemsof disadvantagedchildren, the control teachers were not aware of the nature of the experimental variable, not did they know the schools in which the experimental classes were conducted. It seemed best to allow them to proceed in their usual fashion. Any special emphasis produced in the experimental teachers by the novelty of the experience, was well worn off after two months, at which time the regularity of the program, their class and curriculum as a whole, made for a casual and unanxious reaction to the experiment and to the investigator which was quite different from their earlier tension and eagerness to please.

Administration and Scoring of Tests, October and June

The administration and scoring of the two tests will be discussed separately.

Free Association Vocabulary Test (Appendix V, VI)

The Free Association Vocabulary Test, validated in 1940 by Tinker, Hackner and Wesley as a measure of specific vocabulary knowledge when compared with conventional vocabulary tests, was used by Dolch and Figurel in their vocabulary studies. Before the test was given, each classroom was prepared by the tester according to instructions developed by the investigator to avoid copying of words from the blackboard, wall charts, books etc. (Appendix VI). Coded, lined booklets with a place for each child's name, school and class on the cover, were distributed to the children and the same instructions given to the children in each class, as follows:

> Tester to Children
>
> "Open your book like this.
> I want you to write as many words in the book as you remember. Don't worry about spelling. This is not a spelling test.
> Write your words as well as you can: big words, little words, baby words, grown-up words, school words, play words, any words you remember.
> Do you understand what to do?
> Does anyone want to ask a question?"
> (Specific questions on spelling were not answered.)

To the Tester Only

Wherever possible, answer by saying, "I said you could use any word -- a big word, a little word, a baby word, a grown-up word, school words, play words, any word you remember. Do the best you can." Then say to the children,

Tester to Children

"Do not copy anyone else's words, and don't let anyone copy yours. Write your own words. If you do not copy from anyone else, I will let you keep your pencil as a present. Would you like that?
Everybody ready?
Now begin."

Time was noted, and after twenty minutes the children were stopped, the books collected, and the children permitted to keep their pencils.

Quantitative Count

The following criteria, prepared in advance, were followed in the vocabulary count.

a) Every legible word was counted without regard to its spelling, except proper names of people, made-up words, and words representing sounds. Names of places, days of the week or months, numerals and contractions were all considered important word learnings at this age and for this population, and were counted.

b) All forms of a verb were considered as separate words rather than as one root word. Tenses were considered important word learnings at this age and for this population.

c) Inflections represent a maturing level of development in speech, so plurals formed by simple "s" (houses) as well as plurals formed by change of word (mice) were counted separately.

d) Comparative and superlative forms of adjectives and adverbs were counted separately.

e) All derived forms of a word were counted separately rather than as derived forms of one root word.

f) Any word appearing more than once on a given child's paper was counted only once in the total count of that paper.

In view of the discrepancies in handwriting and spelling of children so young, the count was checked by a jury of three college students both as to number of words and agreement on meaning of ambiguous words. Every legible and elegible word in each child's booklet was transposed to a 3 x 5 card on which the word, the child's code number and the school's code were also indicated. Each child's set of cards, representing one booklet, was alphabetized and the number of different words was counted. The total number of different words for each child was recorded on the test booklet in a prepared space, and on a master sheet. After all the words had thus been counted and recorded, every fifth booklet was reexamined by a college student for accuracy of word meaning and of numerical count, until no errors were found. A master list of different words was made up from the children's cards for each class, after which a total experimental and control list were drawn up as well. The list of words of the pre-test became EV and CV; the post-test vocabulary lists became E'V and C'V.

Qualitative Count

The experimental and control lists EV, CV and E'V and C'V were submitted to comparison with Rinsland's frequency ratings of words used by children in free composition. The more rarely the word was used, the higher was the quality rating. Rinsland's frequency ratings listed in groups of half thousands, were converted into point values in the following way: Each word on the research vocabulary list was located under Rinsland's appropriate column for the second grade at the point in the column where the index symbol is listed for the frequency group into which the word falls (See Appendix VII). The Rinsland index symbols for frequency occurrence were converted to point values for the quality count of this investigation according to the following formula:

FREQUENCY	RINSLAND SYMBOLS	CONVERSION TO QUALITY POINTS
First 100-500 words	1a1-1a5	no point value
Second 500 words	1b1-1b5	no point value
First half of second 1000 words and up to all of the fifth thousand	2a-5b	2a = 2 2b = 2.5 3a = 3 3b = 3.5 4a = 4 4b = 4.5 5a = 5 5b = 5.5
Sixth thousand and up to nine	6-9	6 = 6 7 = 7 8 = 8 9 = 9

If a word did not appear in the second grade column it was given the converted value for the group frequency at the next higher grade in which it appeared. If the word appeared in several higher grades, the first appearance, which would be the lowest grade of the group, was counted. For example, *row* appears under the second grade column as 2a (first half of second thousand) and is converted to two points; *stall* appears as 3b and is converted to a point value of 3.5. *Ferocious*, however, does not appear under the second grade column; it first appears under the eighth grade where it falls into the seventh thousand, giving it a quality point rating of seven. The total for these words would be 12.5 quality points. Frequency groupings below the first thousand were not given quality point value because the words are too commonly used to indicate a qualitative differentiation.

Converted quality points were totalled for each child and entered on the prepared space in the booklet and on the master sheets.

Metropolitan Achievement Test in Reading, Upper Primary Grade Two

Metropolitan Achievement Tests in Reading were standardized on more than 500,000 pupils drawn from 225 school systems in forty-nine states. The school systems represented were of seven different sizes, weighted in accordance with the proportion of pupils in such systems in the national population. Segregated Negro schools were included in the sample. Reliability medians for the Metropolitan Achievement Tests in Reading are .93 for Word Knowledge, .88 for Word Discrimination, .94 for Reading.

Form B of this test was administered in October and Form C in June of the school year, by the investigator and several graduate students and beginning teachers who were specially trained by the investigator in two two-hour sessions to give this as well as the Vocabulary test. The same tester remained with a class throughout the four sessions of the Reading and Vocabulary tests. In the fall the tester assigned to a class included a preliminary story-reading session in order to establish rapport between these young and test-inexperienced children and the tester. Every effort was made to schedule the sessions in such a way that every class would have a balance of morning and afternoon sessions. This was not always possible because of the classroom teacher's program, which had to be considered in setting up test schedules.

Reading tests were scored by the investigator and a group of college juniors. Every fifth test was re-examined and scored until no errors appeared. Raw scores were converted to grade levels according to the conversion tables in the manual of the Metropolitan Reading Achievement Test and grade level scores were entered for each child. The separate subtests, word knowledge, word discrimination and reading were considered useful at this age level, and were therefore recorded separately.

Treatment of the Data

Data used to test the hypotheses guiding this research were obtained from a Free Association Vocabulary Test given before and after the experimental variable was introduced, and the Metropolitan Achievement Test in Reading, Upper Primary for Grade 2, also given at the beginning and at the end of the research.

Free Association Vocabulary Test

The words listed by the children during a twenty minute period were assessed for quantity and quality. The quantitative count of different words was made for each group, experimental and control, and for each sub-group of classes according to placement on the grade, Low, Middle, High, by counting every word that fulfilled the prescribed criteria (p.79) and appeared at least once. No word was counted more than once. The means and standard deviations were determined for the totals in each group and sub-group, and these were used for an analysis of covariance to determine whether a significant difference would be found between the experimental and control groups in quantity. To determine the qualitative differences in vocabulary between experimental and control groups, the words on the Free Association Vocabulary Test were submitted to an analysis of their frequency rating about the first thousand words on the Rinsland Vocabulary list, a list derived from words used by elementary children in free composition writing. The frequency rating found for each word of the research vocabulary on the Rinsland list was converted to a quality score in a ratio commensurate with the Rinsland rating (p.82). The quality points were totalled for the experimental and control groups, and for the sub-groups Low, Middle and High. The means and standard deviations were determined for the totals in each group and for each sub-group, and these were used for an analysis of covariance to determine whether a significant difference would be found between the experimental and control groups in quality of vocabulary if evaluated according to Rinsland's vocabulary list.

Metropolitan Achievement Test in Reading, Upper Primary, Grade Two

Each of the three tests of the Metropolitan Achievement Test in Reading, Upper Primary, Grade Two, was treated separately.

a) Word Knowledge

The mean and standard deviations were obtained for the scores of the experimental and control groups and the sub-groups Low, Middle and High, on Word Knowledge.

These were then used for an analysis of covariance to determine whether a significant difference would be found between the experimental and control groups in word knowledge.

b) Word Discrimination

The mean and standard deviations were obtained for the scores of the experimental and control groups and the sub-groups Low, Middle, High on Word Discrimination. These were then used for an analysis of covariance to determine whether a significant difference would be found between the experimental and control groups in word discrimination.

c) Reading

The mean and standard deviations were obtained for the scores of the experimental and control groups and sub-groups Low, Middle, High on Reading. These were then used for an analysis of covariance to determine whether a significant difference would be found between the experimental and control groups in Reading.

Summary

The two analyses of covariance obtained from the data of the Free Association Vocabulary Test were used to determine whether the first part of the hypothesis was supported or rejected.

The three analyses of covariance obtained from data of the Metropolitan Achievement Test in Reading, Upper Primary, Grade Two were used to determine whether the second part of the hypothesis was supported or rejected.

CHAPTER V

RESULTS

It was hypothesized that the introduction of a special program in literature into the curriculum of disadvantaged second grade children would cause significant, measurable improvement in 1) vocabulary and 2) reading. A Free Association Vocabulary Test was used to gather data on vocabulary, which was assessed quantitatively and qualitatively. The Metropolitan Reading Achievement Test, Upper Primary gave data on reading.

I. Free Association Vocabulary Test

Table IV shows the quantitative adjusted criterion means obtained on a Free Association Vocabulary Test for both the experimental and control groups in the study. Table V illustrates the results of an analysis of covariance to determine whether the differences between the two groups were significant or not. Since an F ratio of 8.7538 was obtained, and this is significant at the .05 level, it indicates that the experimental group gained a significant quantitative increase in vocabulary over that of the control group.

Table VI shows the qualitative adjusted criterion means obtained from the Free Association Vocabulary Test for both the experimental and control groups in the study. Table VII illustrates the results of an analysis of covariance to determine whether the differences between the two groups were significant ornot. The F ratio of 3.45 obtained on the covariance is slightly less than the F of 3.87 required for significance at the .05 level. Combining the findings of both the quantitative and qualitative vocabulary achievements it appears that the first part of the hypothesis is supported. In the next chapter these vocabulary findings will be discussed further.

TABLE IV

ADJUSTED CRITERION MEANS OF THE EXPERIMENTAL AND CONTROL GROUPS ON FREE ASSOCIATION VOCABULARY TEST, QUANTITATIVE COUNT

Experimental			Control	
N	Means		N	Means
140	67.29	Total group	108	58.44
27	33.19	Low classes	37	28.04
69	61.76	Middle Classes	30	60.71
44	96.88	High classes	41	84.24

TABLE V

ANALYSIS OF COVARIANCE OF EXPERIMENTAL AND CONTROL GROUPS ON FREE ASSOCIATION VOCABULARY TEST, QUANTITATIVE COUNT: TOTAL GROUP, LOW, MIDDLE AND HIGH CLASSES

	SS	df	MS	F ratio
Total group				
Between groups	4774.9600	1	4774.9600	8.7538*
Within groups	133640.1100	245	545.4698	
Total	138415.0700	246		
Low classes				
Between groups	376.0680	1	378.0680	1.5234
Within groups	15137.6220	61	248.1577	
Total	15515.6900	62		
Middle classes				
Between groups	22.9140	1	22.9140	.0410
Within groups	53552.0390	96	557.8337	
Total	53574.9530	97		
High classes				
Between groups	3347.5140	1	3347.5140	5.6542**
Within groups	48546.6230	82	592.0319	
Total	51894.1370	83		

* significant at .005 **significant at .05

TABLE VI

ADJUSTED CRITERION MEANS OF THE EXPERIMENTAL AND CONTROL GROUPS ON FREE ASSOCIATION VOCABULARY TEST, QUALITATIVE COUNT

Experimental			Control	
N	Means		N	Means
140	26.41	Total group	108	20.94
27	8.18	Low classes	37	4.94
69	20.96	Middle Classes	30	16.41
44	47.04	High classes	41	37.61

TABLE VII

ANALYSIS OF COVARIANCE OF EXPERIMENTAL AND CONTROL GROUPS ON FREE ASSOCIATION VOCABULARY TEST, QUALITY COUNT: TOTAL GROUP, LOW, MIDDLE AND HIGH CLASSES

	SS	df	MS	F ratio
Total group				
Between groups	181316.0000	1	181316.0000	3.4519*
Within groups	12816100.9760	244	52525.0040	
Total	12997416.9760	245		
Low classes				
Between groups	15378.1900	1	15378.1900	4.7757**
Within groups	196424.0800	61	3220.0668	
Total	211802.2700	62		
Middle Classes				
Between groups	41969.8000	1	41969.8000	.9723
Within groups	4100376.5100	95	43161.8580	
Total	4142346.3100	96		
High classes				
Between groups	188337.9000	1	188337.9000	2.8531
Within groups	54129020.0820	82	66011.0010	
Total	54317357.9820	83		

*F ratio of 3.84 significant at .05 **significant at .05

II. Metropolitan Reading Achievement Test, Upper Primary

Table VIII shows the adjusted criterion means for the test Word Knowledge on the Metropolitan Reading Achievement Test for both the experimental and control groups in the study. Table IX illustrates the results of an analysis of covariance to determine whether the differences between the two groups were significant or not. Since an F ratio of 18.2339 was obtained, and this is significant at the .005 level, it indicates that the experimental groups gained a significant increase in word knowledge over that of the control group.

Table X shows the adjusted criterion means for the test Word Discrimination on the Metropolitan Reading Achievement Test for both the experimental and control groups in the study. Table XI illustrates the results of an analysis of covariance to determine whether the differences between the two groups were significant or not. There was no significant difference between the two groups in word discrimination. The possible meaning of this, in the face of significance in the other parts of the Metropolitan Reading Test will be discussed in a later chapter.

Table XII shows the adjusted criterion means for the test in Reading Comprehension on the Metropolitan Reading Achievement Test, for both the experimental and control groups in the study. Table XIII illustrates the results of an analysis of covariance to determine whether the differences between the two groups were significant or not. An F ratio of 7.2080 was obtained, significant at the .01 level, indicating that the experimental group gained a significant increase over the control group in reading.

Since the Metropolitan Reading Achievement tests in word knowledge and reading comprehension measure vocabulary and total reading skill, and the F ratios obtained were at the .05 and .01 levels respectively, the second part of the hypothesis, namely that the experimental group would improve significantly in reading over the control group, appears supported.

TABLE VIII

ADJUSTED CRITERION MEANS OF THE EXPERIMENTAL AND CONTROL GROUPS ON METROPOLITAN READING ACHIEVEMENT TEST, WORD KNOWLEDGE

Experimental			Control	
N	Means		N	Means
147	2.47	Total group	114	2.12
30	1.74	Low classes	36	1.55
72	2.26	Middle classes	30	2.10
45	3.13	High classes	48	2.75

TABLE IX

ANALYSIS OF COVARIANCE OF EXPERIMENTAL AND CONTROL GROUPS ON METROPOLITAN READING ACHIEVEMENT TEST, WORD KNOWLEDGE: TOTAL GROUP, LOW, MIDDLE AND HIGH CLASSES

	SS	df	MS	F ratio
Total group				
Between groups	711.2910	1	711.2910	18.2339*
Within groups	9518.2270	244	39.0091	
Total	10229.5190	245		
Low classes				
Between groups	54.4347	1	54.4347	4.5267**
Within groups	733.5356	61	12.0251	
Total	787.9704	62		
Middle classes				
Between groups	40.8383	1	40.8383	2.0406
Within groups	1841.1183	92	20.0121	
Total	1881.9566	93		
High classes				
Between groups	310.9578	1	310.9578	8.0141***
Within groups	3298.0940	85	38.8011	
Total	3609.0518	86		

*Significant at .005 **Significant at .05 ***Significant at .025

TABLE X

ADJUSTED CRITERION MEANS OF THE EXPERIMENTAL AND CONTROL GROUPS ON METROPOLITAN READING ACHIEVEMENT TEST, WORD DISCRIMINATION

Experimental			Control	
N	Means		N	Means
147	2.68	Total group	110	2.68
28	1.84	Low classes	34	1.67
73	2.55	Middle classes	29	2.74
46	3.50	High classes	47	3.40

TABLE XI

ANALYSIS OF COVARIANCE OF EXPERIMENTAL AND CONTROL GROUPS ON METROPOLITAN READING ACHIEVEMENT TEST, WORD DISCRIMINATION: TOTAL GROUP, LOW, MIDDLE AND HIGH CLASSES

	SS	df	MS	F ratio
Total group				
Between groups	.1550	1	.1550	.0032
Within groups	11470.9950	241	47.5974	
Total	11471.1500	242		
Low classes				
Between groups	40.2817	1	40.2817	3.4613
Within groups	663.3375	57	11.6375	
Total	703.6192	58		
Middle classes				
Between groups	65.6711	1	65.6711	1.5055
Within groups	4274.5698	98	43.6180	
Total	4340.2409	99		
High classes				
Between groups	17.8594	1	17.8594	.4945
Within groups	2889.2089	80	36.1151	
Total	2907.0683	81		

TABLE XII

ADJUSTED CRITERION MEANS OF THE EXPERIMENTAL AND CONTROL GROUPS ON THE METROPOLITAN READING ACHIEVEMENT TEST, READING COMPREHENSION

Experimental			Control	
N	Means		N	Means
141	2.45	Total group	108	2.21
26	1.67	Low classes	34	1.37
70	2.22	Middle classes	29	2.24
45	3.23	High classes	45	2.92

TABLE XIII

ANALYSIS OF COVARIANCE OF EXPERIMENTAL AND CONTROL GROUPS ON METROPOLITAN READING ACHIEVEMENT TEST, READING COMPREHENSION: TOTAL GROUP, LOW, MIDDLE AND HIGH CLASSES

	SS	df	MS	F ratio
Total group				
Between groups	349.0510	1	349.0510	7.2080*
Within groups	11379.9170	235	48.4251	
Total	11728.9680	236		
Low classes				
Between groups	133.7917	1	133.7917	9.6745**
Within groups	774.4367	56	13.8292	
Total	908.2285	57		
Middle classes				
Between groups	.7033	1	.7033	.0286
Within groups	2283.5254	93	24.5540	
Total	2284.2287	94		
High classes				
Between groups	187.5032	1	187.5032	4.0461 ***
Within groups	3707.2987	80	46.3412	
Total	3894.8019	81		

*Significant at .01 **Significant at .005 ***Significant at .05

Of the five variables on which comparisons were made, Vocabulary, quantitative; Vocabulary, qualitative; Reading: Word Knowledge; Reading: Word Discrimination; Reading: Sentence and Paragraph comprehension, three were significant at .05, .01 and .005, and a fourth just missed significance at the .05 level. It is assumed, therefore, that reading specially chosen stories to children does increase their vocabulary and reading comprehension, but does not seem to affect the specific skill of word discrimination. The hypothesis, that the introduction of a special program in literature into the curriculum of disadvantaged second grade children would cause significant, measurable improvement in 1) vocabulary and 2) reading, is therefore considered supported by the results.

A brief discussion is in order here on the similarity of the results of the middle experimental and control classes on certain variables. In the school in which the middle control classes fell, there was serious question as to whether the control conditions were maintained. Although all principals had to be informed of the nature of the research, the control teachers were not. After the research was completed, the teachers of the two middle classes and one low class in this school claimed to have read stories to their classes every day or almost every day throughout the school year in an informal questionnaire sent them by the investigator. Since the experimental variable was story reading, if the teachers of these classes did actually read regularly as they claimed, the comparable achievement of the middle experimental and control classes would seem to give confirmation to the hypothesis. However, the low class in this same control school did not do as well as the experimental low classes, and in fact achieved at levels comparable to the other low control classes. (See Table XIV, p. 99) Inasmuch as the investigator had no choice over the selection of the books read to these children, if the teachers did actually read aloud each day as they said, the trend toward regression of scores in the low class which followed the pattern of the other two Low control classes but not of the experimental low classes, would suggest that for the slowest children in this population the criteria for the selection of books advanced in this research are crucial in affecting learning in vocabulary and reading.

TABLE XIV

GAIN IN MONTHS ON METROPOLITAN READING ACHIEVEMENT TEST, LOW CLASSES, EXPERIMENTAL AND CONTROL

Gain in Months	Experimental N=26	Control N=31
+9	**	
+8		
+7	*	#
+6	****	##
+5	***	#
+4	**	#
+3	****	#
+2	**	#
+1	*	###
No gain		
-1	**	####
-2	*	##
-3	**	###
-4		####
-5	*	#####
-6	*	#
-7		##
-8		
-9		

Each symbol represents one pupil

TABLE XV

GAIN IN MONTHS ON METROPOLITAN READING ACHIEVEMENT TEST, MIDDLE

Gain in Months	N-54 Exp.	N-24 Control
+22-24	*	#
+19-21	*	#
+16-18	**	#
+15		#
+14	**	
+13	**	
+12	*	#
+11	**	#
+10	****	#
+9	*****	#
+8	*	##
+7	********	###
+6	*********	#
+5	*******	######
+4	*	#
+3	****	###
+2	******	#
+1	***	
0		
- 1	**	
- 2	**	

Each symbol represents one pupil

TABLE XVI

GAIN IN MONTHS ON METROPOLITAN READING ACHIEVEMENT TEST, TOP

Gain in Months	Exp. N-42	Control N-38
23-30	******	#
19-22	**	#
16-18	*****	#####
15	**	##
14	***	#
13		#
12	***	####
11	**	######
10	******	
9	***	
8	**	
7		###
6	**	###
5	*	######
4	**	##
3	**	##
2	*	#
+1	*	#
0		#
-1		#
-2		

Each symbol represents one pupil

In addition to the analysis of covariance, a correlation matrix was made, using pre and post-test scores on the five variables as well as sex, age and placement on the grade. The correlation coefficents appear in Table XVII.

TABLE XVII

CORRELATION MATRIX OF FIVE VARIABLES, VOCABULARY (QUANTITATIVE AND QUALITATIVE), WORD KNOWLEDGE, WORD DISCRIMINATION, READING COMPREHENSION

	PRE-TEST	POST-TEST
Vocabulary Count: Quality points	.6058	.7808
Vocabulary Count: Word Knowledge	.4778	.6489
Vocabulary Count: Word Discrimination	.6005	.7079
Vocabulary Count: Reading	.4334	.6345
Vocabulary Quality: Word Knowledge	.3847	.6696
Vocabulary Quality: Word Discrimination	.5365	.7302
Vocabulary Quality: Reading	.4117	.6687
Word Knowledge: Word Discrimination	.4648	.8133
Word Knowledge: Reading	.5221	.8739
Word Discrimination: Reading	.5312	.8080

Age and sex did not correlate with any variable. But the position on the grade of Low, Middle or High did show positive correlation with the five variables, as in Table XVIII.

Since these correlations are highly significant for the numbers involved, it can be concluded that there is a clear and important relationship between vocabulary and reading.

TABLE XVIII

CORRELATION BETWEEN POSITION ON THE GRADE, (LOW, MIDDLE, HIGH CLASSES) AND VOCABULARY, QUANTITATIVE AND QUALITATIVE, WORD KNOWLEDGE, WORD DISCRIMINATION AND READING COMPREHENSION

	Position on the grade: Low, Middle, High	
	Pre-Test	Post-Test
Vocabulary, quantity	.6843	.6496
Vocabulary, quality	.3628	.5575
Word Knowledge	.3962	.6698
Word Discrimination	.5411	.6857
Reading Comprehension	.4594	.7085

In evaluating the validity of the pre-test correlations as shown in Tables XVII and XVIII, it is necessary to note that the characteristically low level of reading and writing skill at the beginning of second grade was below the average for second grade among large numbers of children in this study. The absence of almost any degree of skill in reading or writing among the lowest third of the group, and the below grade level of all but the top experimental classes at the end of the study, makes the pre-test correlations unrealistic, and probably unreliable. It may not be assumed, therefore, that correlations between position on the grade and any variable increased by the end of the school year. It is more likely that correlations became available for the first time when the children had attained a sufficient degree of skill in reading and writing for their achievement to be recorded, no matter at how low a level.

Of the five variables on which comparisons were made, three were significant: Vocabulary, quantitative at .005, Word Knowledge on the Metropolitan Reading Achievement Test at .005, and Reading Comprehension on the Metropolitan Reading Achievement Test .01. A fourth variable Vocabulary, qualitative, just missed significance at .05. In the fifth, Word Discrimination, there was no difference. The hypothesis that the introduction of a special program in literature into the curriculum of disadvantaged second grade children would cause significant, measurable improvement in vocabulary and reading is considered supported.

SUMMARY

The following is a summary of the results obtained by an analysis of covariance.

1. The experimental group showed an increase in vocabulary over the control group, significant at .005.

2. The experimental group showed an increase in Word Knowledge (Metropolitan Reading Achievement Test) over the control group, significant at .005.

3. The experimental group showed an increase in Reading Comprehension (Metropolitan Reading Achievement Test) over the control group, significant at .01.

4. The experimental group showed a numerical point superiority in quality of vocabulary over the control group, with an F ratio of 3.45. Since an F of 3.84 is necessary for significance at the .05 level, significance at the .05 level was narrowly missed.

5. There was no significant difference in Word Discrimination (Metropolitan Reading Achievement Test).

Although the above results apply to the entire group, an examination of the achievement of the three lowest classes in both the experimental and control groups was considered separately, inasmuch as these lowest classes have been the most difficult to affect academically.

Six Lowest Classes Considered Separately

1. The Low experimental group showed an increase over the Low control group in quality of vocabulary as measured by frequency rating in the Rinsland Vocabulary List, significant at .05.

2. The Low experimental group showed an increase over the Low control group in Word Knowledge (Metropolitan Reading Achievement Test) significant at .05.

3. The Low experimental group showed an increase in Reading Comprehension (Metropolitan Reading Achievement Test) over the Low control group, significant at .005 and showing a reversal of a trend toward regression among the controls.

The following is a summary of correlations within the entire research population, experimental and control. The correlations are highly significant beyond the .01 level.

Vocabulary, quantity: Vocabulary, quality	.7808
Vocabulary, quantity: Word Knowledge	.6489
Vocabulary, quantity: Word Discrimination	.7049
Vocabulary, quantity: Reading Comprehension	.6345
Vocabulary, quality: Word Knowledge	.6696
Vocabulary, quality: Word Discrimination	.7302
Vocabulary, quality: Reading Comprehension	.6687
Word Knowledge: Word Discrimination	.8133
Word Knowledge: Reading Comprehension	.8739
Word Discrimination: Reading Comprehension	.8080

These results support the general conclusion of the study, namely that oral language correlates with reading, and both can be significantly improved by regular exposure to stories read aloud.

CHAPTER VI

DISCUSSION AND IMPLICATIONS

The objective of this research was to test the hypothesis that the vocabulary and reading of socially disadvantaged children could be improved by the considered and regular use of literature in which comprehensible, affect-laden experiences were combined with the vocabulary of book language. This hypothesis was confirmed. Not only were vocabulary and reading affected to a statistically significant extent, but a trend toward reading failure already evident among the slowest children was reversed as a result of the aural exposure to stories selected according to specific criteria related to the maturity level and emotional receptivity of the children.

It is important to analyze the nature of the learning that occurred among the children, and this will be done in this chapter. Certain discrepancies in the results will be discussed first, beginning with the meaning of the comparable performances in word discrimination of the experimental and control groups on the Metropolitan Reading Achievement Test,despite the significant differences in word knowledge and reading comprehension between the two groups on the same test. Although word discrimination correlates with reading comprehension, word knowledge and vocabulary, its development would seem to be related more to physiological factors and/or specific training than to the conceptualization processes involved in learning vocabulary meaningfully or strengthening comprehension of sequence and complexity of events through words heard or read. The possibility that physical maturation and development are important factors in word discrimination can be considered here because the audiovisual discriminatory skills do depend on acuity of ear and eye as well as the power to understand a relationship between what the ear hears and the eye sees. The range of scores in word discrimination followed the order of Low, Middle and High group scores characteristic of the other measures used. But no significant difference in word discrimination appeared, either between the experimental and control groups as a whole, or between matched sub-groups, i.e. Low, Middle, and High classes of experimental and control. This would seem to imply a condition held in common, such as physical maturation; or it might point to ineffectualness of the experimental variable, story reading, as an influence on audio-visual discrimination as tested on the Metropolitan Reading Achievement Test. It is not unreasonable to assume that under the curriculum followed the children were all exposed regularly to the specific exercises and drills characteristic of the workbook accompaniment to any basal series. These drills are used in early reading to sharpen auditory and visual perception, and the comparability of scores in word discrimination could be a reflection of this training. In any case, the results ~~that~~ indicate that hearing stories does not by itself strengthen this particular aspect of the total battery of skills involved in reading.

The second discrepancy of importance to discuss is the fact that the higher scores of the experimental group in quality of vocabulary just missed significance at the 5% level, although the quantitative increase in word knowledge and vocabulary were significant. Several factors may have concealed actual gains, and these are worth discussing for their implications beyond this research. The first of these factors is the interpretation given to the concept of quality of vocabulary in this research. In the literature, three different assessments of quality in language were found, and these were 1) progression from literary equivalencies of words, through familiarity with adult occupations and activities, to familiarity with regional differences in terms, to words of abstract meaning;[1] 2) levels of definition of words in a progression from concrete to abstract meaning[2]; 3) progression of concrete to abstract words as part of a general maturational ability,[3] and 4) words as a representation of extension of experience.[4] It was assumed for this research that

---

[1] F. Dolch, Reading and Word Hearing, Ginn and Company,1927

[2] H. Feifel and I. Lorge, "Qualitative Differences in the Vocabulary Responses of Children," Journal of Educational Psychology, 41, 1950, 1-18.

[3] R. Russell and I. Saadeh, "Qualitative Levels in Children's Vocabulary," Journal of Educational Psychology, 53, August 1962, 170-174.

[4] J.Drever, as cited in D. McCarthy, "Language Development in Children," in L.Carmichael, ed. Manual of Child Psychology, ed.2, New York: John Wiley and Sons, 1954, 587.

Rinsland's frequency distribution based on children's use of words in free writing would reflect progression from concrete to abstract, extension of experience beyond the immediate and personal, and would reveal the use of figurative, literary language. It was also expected that the effect of the experience with books on disadvantaged children would be sufficiently meaningful so that results would show increase beyond the normal developmental improvement in language growth that would occur as a result of school experience and maturation.

However, while the hypothesis concerning improvement in quantity was borne out, the higher point value in quality of the experimental group just missed being statistically significant. One possible explanation has to do with the level of vocabulary at which all the children were functioning. It appears likely that the initial paucity of vocabulary was so great among the disadvantaged children studied, with impoverishment at greatest basic minimal level of frequency, that words of literary usage, increasing abstraction, or remoteness of experience were not reasonable goals to measure in children of this age and experience after so short an exposure to books. Tables XIX and XV show that while the bulk of the vocabulary obtained from experimental and control groups fall into the categories 2a, 2b, 3a, 3b, 4a, which are within the 3500 most frequently used words on Rinsland's list, about half of the research vocabulary falls into the first two of the five categories. These categories represent the second thousand most frequently used words in Rinsland's list, and the first level at which quality points were designated in this research.

TABLE XIX

NUMBER OF WORDS OBTAINED FROM FREE ASSOCIATION VOCABULARY TEST OF EXPERIMENTAL GROUP, (N = 140), PRE AND POST-TEST, THAT FALL INTO RINSLAND FREQUENCY CATEGORIES FOR GRADE TWO

Post-Test

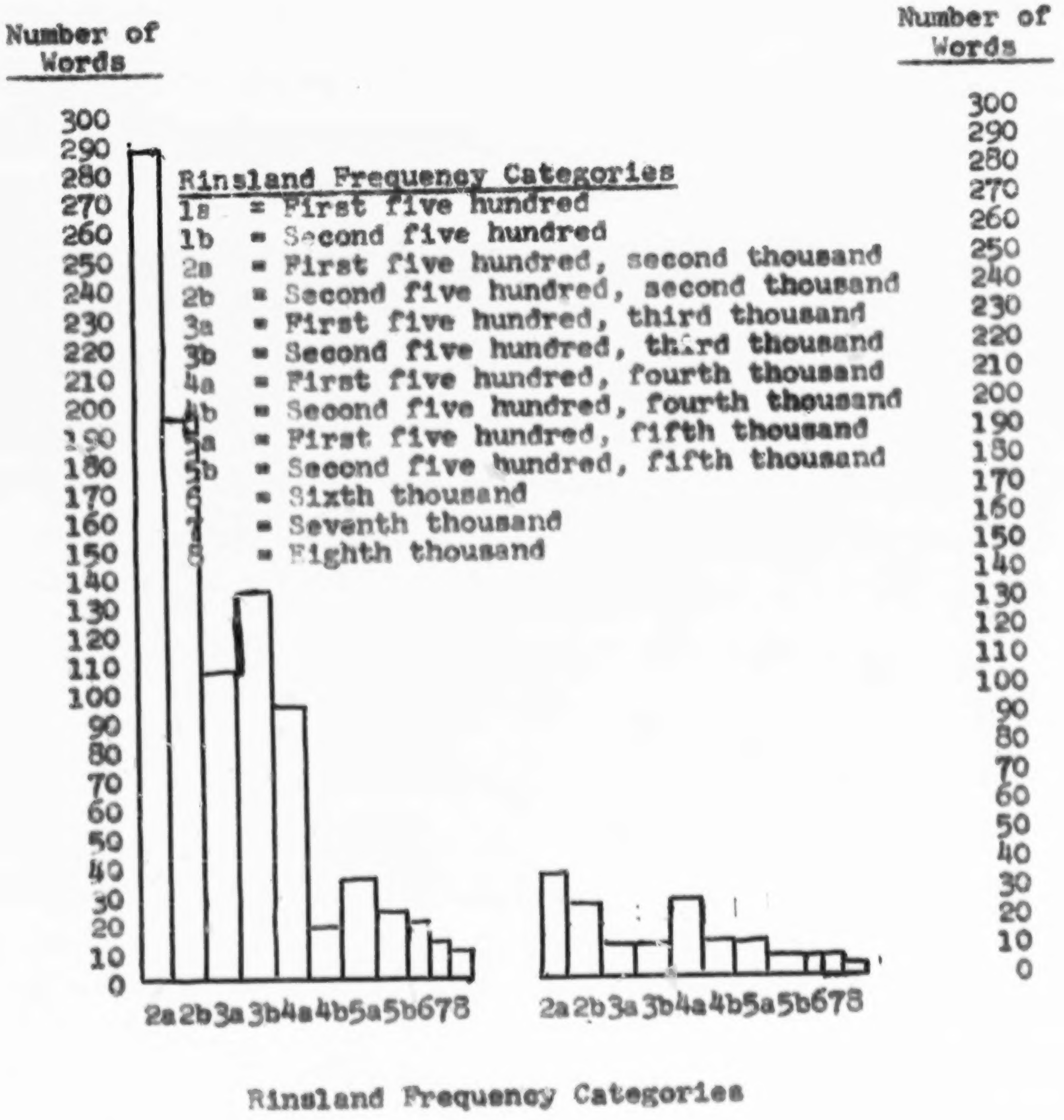
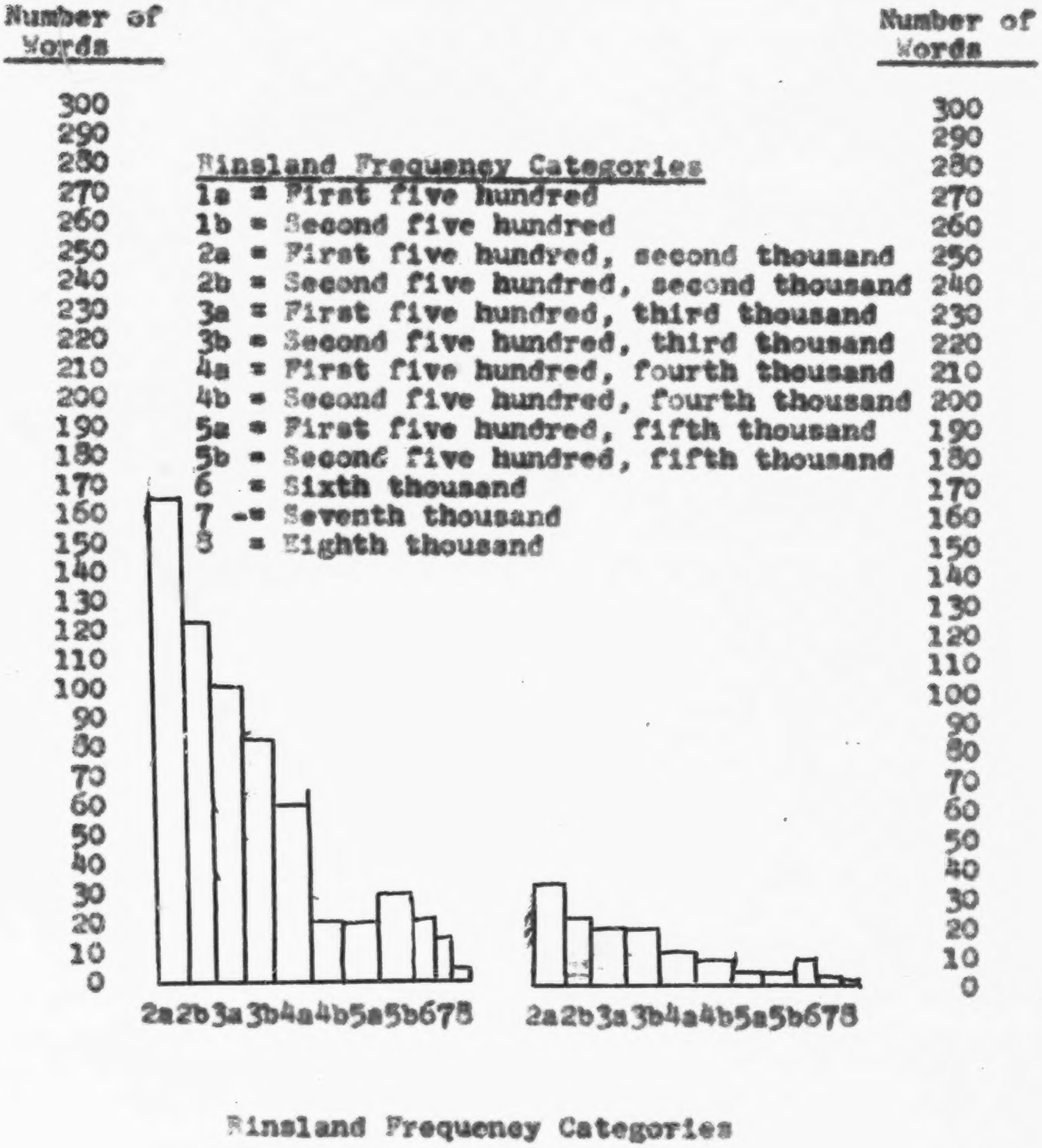


TABLE XX

NUMBER OF WORDS OBTAINED FROM FREE ASSOCIATION VOCABULARY TEST OF CONTROL GROUP, (N= 108), PRE AND POST-TEST, THAT FALL INTO RINSLAND FREQUENCY CATEGORIES FOR GRADE TWO

Post-Test



A comparison of the average gains made by the experimental and control groups in the frequency categories shows that the strengthening of vocabulary for both groups occurred in an inverse relationship to the increase in quality. That is, as frequency rate decreased on the Rinsland list, the children's rate of improvement decreased as well.

TABLE XXI

AVERAGE INCREASE OF EXPERIMENTAL AND CONTROL GROUPS IN EACH RINSLAND CATEGORY OF FREQUENCY

Experimental Number of Words		Average Gain	Rinsland Frequency Category	Control Number of Words		Average Gain
Pre-Test	Post-Test			Pre-Test	Post-Test	
41	290	1.8	2a	31	159	1.2
30	200	1.2	2b	21	115	.87
10	116	.74	3a	14	87	.67
10	137	.90	3b	14	81	.62
19	96	.55	4a	9	54	.41
8	19	Number of words too small to use	4b	5	20	Number of words too small to use
8	19		5a	4	19	
6	27		5b	4	27	
6	26		6	6	20	
3	12		7	1	12	
1	5		8	0	2	

The meaning of these data, however, would become clearer if the results of a free association vocabulary test such as the one used in this research were obtained from a group of second grade children clearly known to be children of better socio-economic circumstances and better educated parents. It is possible that for reasons having to do with maturation, increases in vocabulary at this age follow a pattern such as indicated among the disadvantaged children studied, and what appears to be impoverishment of an overall, general nature, may in fact be confined to specific areas.

Another point in question concerning the assessment of quality involves the Rinsland list, the use of which, in the course of this research, brought to light a number of shortcomings affecting its use as a discriminating instrument.

In the years since the Rinsland listing was made, the rapid changes toward urbanization and away from rural life were reflected in the research vocabulary to an unpredictable extent, and the comparisons between the research vocabulary and the Rinsland frequency categories revealed distortions of values that resulted from the changing vocabulary of the era. For example, many words used by Rinsland's children with great frequency, and having low "quality" value, were words associated with rural life, a way of life hardly familiar to the average, middle class suburban/young child, much less the urban slum child. Such words as *calf*, *dairy*, *plow*, *town* and *wheat*, along with the slightly more familiar *barn*, *bark* and *hay* fell into the *first* thousand most frequently used words and received no quality points at all in this study. Second grade slum children were likely to have heard these words in stories read to them if at all, but received no credit for them. A somewhat higher level, the first half of the second thousand most frequently used words, categorized as 2a, included more of the unfamiliar rural vocabulary, eg. brook, pine, lamb, bull, vine, none of which are commonplace words for the disadvantaged urban child. On the other hand, words which have become commonplace since the Rinsland study, but were unavailable at the time, did not of course appear, so that the research children could not receive any assessment of words like supermarket, loudspeaker, popgun, or World's Fair. Coincidental with changes of this kind, were others reflecting changes in style of child-life and values. In the Rinsland list high value was given to low frequency words such as Sis and Wow, neither a quality word in the sense described above. High value was also given to words like crook, dice, fake, hot-dogs, landlord, perhaps indicating a sophisticated knowledge of the seamier aspects of adult life at one time, but not having the same implication of sophistication at all for the population under study or any child who follows television gangster shows. Other words at one time unfamiliar to children, but popularized by mass media or change in custom, are words like orbit and X-ray. These received high value, when in fact they are much better known now to children than they were at the time of the Rinsland study.

A second, and perhaps even more important aspect of the Rinsland list is one which is true of all vocabulary studies, and calls for reevaluation of their use. In this research some distortion of the results undoubtedly resulted from the practice of listing words as spelling words without regard to meaning. English not only has words of multiple meaning, but quality of language is often correlated with meaning, and the difference in the use of a word as a noun or a verb can reflect such quality. The word present, for example, is known to second graders as a word used to respond to a teacher's question regarding their attendance; its use to mean a gift may be a less sophisticated use; its use as a verb is indeed quality use for a child. Words like beat, watch, fish, iron, switch, nail, move, letters, fair, live, way, sink, and wounds were among the words of more than one meaning that appeared on the children's lists in this research.

Several possible approaches to the examination of children's vocabulary suggest themselves as a result of this research, and they will be discussed briefly here.

Since growth in conceptualization is revealed in words, one way of assessing vocabulary may be through examination of the way in which words are used to express a variety of concepts. E.g. different levels of conceptualization of time are revealed in words like when, while, young, clock, yesterday, tonight and now; of quantity in words like zero, pint, plenty, sixth and more; of place and space in where, there, up, down or away. There may be a ratio of words expressing concrete experience(such as animal, ice-cream or kitten)as against words expressing the abstract, (such as self, sanitation and interesting.) Such an approach was initiated by Feifel and Lorge,[1] and Russell and Saadeh.[2] Another possible dimension of evaluation might be structural growth: the word with appears in the first five hundred most frequently used words of the Rinsland vocabulary, but without appears in the third thousand; happy is categorized 1a2, happily 3a, and unhappy 3b. Still another possibility is that words which reveal emotional and psychological experience may also be revealing levels of functioning that are closer to or more remote from physical and sensory responses, and therefore a measure of quality as related to breadth and depth of understanding. Thus cry is categorized in Rinsland as 1b1, shy as 6; something has a frequency rating of 1a4 (among the first four hundred words used) but someone and somebody are 2a (second thousand). Grandmother appears among the first four hundred words (1a4), grandfather in the first seven hundred (1b2), but grandchild appears in the fifth thousand, (5a). Quality of a word as judged by the frequency of its appearance in a child's vocabulary, is apparently a consequence of many varied factors. Opportunity and experience are obviously basic ones, but emotional development and maturity, related both to age and stage as well as to individual differences, are others. Scope of understanding along a continuum of concrete to abstract, related also to age and stage as well as to individual difference, is still another. The function of experience in hastening or deepening the emotional or intellectual is something we know to be of importance only in the most general terms. We have yet to understand the cause and effect relationship more precisely.

---

[1] H. Feifel and I. Lorge, "Qualitative Differences in the Vocabulary Response of Children," Journal of Educational Psychology, 41, 1950, 1-18.

[2] D. Russell and I.Q. Saadeh, "Qualitative Levels in Children's Vocabulary," Journal of Educational Psychology, 53, August 1962, 170-174.

One last comment on compiling vocabulary lists is in order here. In the course of the data analysis, it became necessary for different reasons to delete the pre and post-test vocabulary of four classes from the final data. Any word which appeared only in the booklet of a child or children of a deleted class but not in any other class was culled from the total data and discarded. This experience revealed the interesting observation that the greater the numbers of children who participated in the research, the greater the number of _different_ words in the total list of words. As children were eliminated, the total number of words fell. For this reason, statements that appear in the literature, to the effect that children of a given age or socio-economic group know just so many words, needs to be questioned. There is a very flexible outer boundary, and one that gives unexpectedly, as one tries to count the words children know. Individual experiences and response are apparently too differentiated for word knowledge to be assessed numerically with any accuracy for any given age group or socio-economic class.

II. Progression in Language Learning

Certain kinds of growth patterns emerged when the total group data was broken down into sub-groups of Low, Middle, High. The consistency with which Low, Middle, and High placement within a grade remained stable for experimental and control children on all variables tested, offers an opportunity to examine a hierachy of increasing complexity in the development of language power. The details supporting such a hierarchy were drawn mainly from teacher's verbal reports to the investigator. Although the children were of the same age and socio-economic class, and although each classroom revealed a range from low to high, the starting point along the total continuum of low to high was in each case higher as one proceeded from Low to Middle to High classes. Low, Middle and High remained Low, Middle and High, despite significant gains in the experimental group. An examination of the post-test means of all the variables involved shows the consistency of this Low, Middle and High relationship.

TABLE XXII

ADJUSTED CRITERION MEANS OF LOW, MIDDLE AND HIGH GROUPS ON FIVE VARIABLES

		Experimental	Control
Vocabulary:	**Quantity**		
	Low	33.19	28.04
	Middle	60.76	60.71
	High	96.88	84.24
Vocabulary:	Quality		
	Low	8.18	4.94
	Middle	20.9	16.4
	High	47.0	37.6
Word Knowledge			
	Low	1.74	1.55
	Middle	2.26	2.10
	High	3.13	2.75
Word Discrimination			
	Low	1.83	1.67
	Middle	2.55	2.74
	High	3.49	3.40
Reading Comprehension			
	Low	1.67	1.37
	Middle	2.22	2.24
	High	3.23	2.92

Monthly conferences with each teacher in the experimental program elicited comments which were recorded by the investigator. Examination of the teachers' monthly reports of the use of language in response to the stories reveals an overlapping order in language development that seems to be immediately and continuously related to the nature and extent of perceptual and classificatory functioning. This can be seen as one synthesizes the teachers' reports on their classes.

Low Classes

The outstanding achievement of the bottom-of-the-grade classes seemed to be their growth in listening to, and comprehension of, a flow of words expressing concepts. Long before the mid-year the children were obviously absorbed when the teacher read, were responsive to comments and questions by the teacher and/or the children, and were generally quiet as a result of interest, not coercion. Late in the study, when more difficult books were introduced, if the class was not quite ready for the complexity or abstractness presented in the story, the teachers noted a qualitative difference in the degree of absorption, but not a negative, "tuned-out" response. In the words of one teacher, "Normally this class is noisy, full of movement, distractible. As a result there is much friction between them and the teacher. From the program they learned listening. And reading at the same time every day gives them a good sense of routine." (A teacher of an experimental slow class.) The same teacher who made the above statement, tried to express what she was observing in another way. "I don't think they were able to visualize pictures in their minds from words at the beginning of the term. Now I feel they do. They seem able to understand when you are talking or reading." It took this class about twenty story-reading sessions before the listening seemed to take hold. Another teacher of a slow class said, after two months, "The children seem to enjoy a story no matter how long it lasts." This increased ability to sustain attention in the face of a flow of language was not at the time sufficient, however to allow these children pleasure in the most complex of the stories in the study, which many kindergarten and first grade children in middle income schools would have listened to with ease and pleasure.*

A second important accomplishment in the low group was the high interest in learning to read reported by every teacher. A student teacher who had been in one of the slow classes for the first semester, and was not connected with the study, told the investigator after her student teaching was completed, "Before the program, when the teacher said, 'You may read,' that was a chore. Now, (January), if told 'You may read,' they go to the story books."

From the start, the children in all low classes showed eagerness to take the books back to their desks and pore over them. They made a serious study of the illustrations, as though they were also reading them. Although they were never told to, they copied the pictures with the most careful attention to detail, and reproduced them from memory for a long time. Eventually they added words to their pictures, more often than not words taken from the book, at first copied, later recalled. Some of the less verbal children often drew in brilliant colors and dramatic arrangements, a not uncommon occurrence in the Low classes. What seemed to be developing, from this absorption with pictures, was a greater capacity for perceptive awareness of detail. This level of learning for the underdeveloped child has not been expanded sufficiently as a base in the education of the disadvantaged, despite the emphasis on visual aids in education.

---

*Based on personal experience of the investigator in private and public schools.

After four months of the story-reading program, the relation between symbol and meaning seemed to take hold. As one teacher said, "Suddenly everyone wanted to read!" Resistance to reading lessons simply disappeared as a phenomenon by January although visits to two slow control classes in March showed resistance to be very much a factor both in the teacher's perception* and the investigator's observation of the class. Except for the few truants who were absent for long stretches and disrupted the class on their return, high interest among all the experimental children in slow classes was reported by all their teachers. The children were cooperative and responsive during the reading lessons. They continued to have difficulty learning, but they tried. Edwin, a child who had dramatically realized that words in print have interest and meaning following a story significant to him, expressed poignantly what was apparently a not uncommon feeling. "Help me, teacher," he said frequently. "Help me learn. I'm stupid." In one class the teacher believed that a little girl's behavior problems decreased, and that she was easier to work with than she had been as a difficult first grader, because, "I think she was just too bright. She loves the books, and she knows that as soon as she has finished her work, she can go to them. So she does what she has to, and then she goes back to the books to browse."

---

*Recorded notes of the investigator.

At another school, the principal described the spontaneity and enthusiasm with which the children in the slowest class came to show him their books and offer to show him how they were learning to read, when he visited them. This was not a typical response in this school where he had served for four years. By March, many of the slowest children were on their own initiative reading the story books to themselves or to the teacher. In the words of one teacher, "They don't know all the words, but they manage."

A third accomplishment noted by the teachers was an increased awareness of words and word meaning along with movement toward greater facility in oral expression. Discussions emanating from the stories involved more children than topics related to other aspects of the curriculum. "More children are saying more thangs," is the way one teacher described the response of her class. After two months, one teacher mentioned a heightened word consciousness among her children. Since this teacher was one of the most gifted story-readers of the group, she may have been more sensitive to words herself and helped her group develop such sensitivity sooner as a result. From the monthly conferences with the teacher and the observations of the reading, it appeared to the investigator that the better readers among the teachers in both the slow and average classes expressed less dissatisfaction with the more difficult books, which their children in turn seemed better able to cope with, given the assistance of well phrased, expressive reading, and sensitive explanation of word meaning. This observation is one that certainly merits further testing.

Nevertheless all experimental teachers mentioned as worthy of note the increased attention span to heard language, the recognition with comprehension of words heard in one story when heard in another, and by February, improvement in recalling and relating stories. It was the consensus of the teachers that the children were grasping and imitating the organization of sequence and narration in the stories. According to one teacher this was dramatically evident especially after a second reading of the same story. A leap in level of understanding that moved from dependence on concrete experience to grasp of meaning of experience through language heard, to symbol awareness both oral and written, was apparently taking place for many children. This synthesis was highlighted in one of the episodes involving Little Blue, Little Yellow. Following the mixing of the paints which was an outcome of the story-reading, the teacher of one class reported that children who had not been able to identify either the color or the word despite the conventional color chart on the wall of the classroom, quickly learned both. They now knew blue, yellow, green as well as the words for them. They also learned at the same time to read mix, paint and hugged. The curiosity stimulated by the story had led to the experiencing of color in a concrete, meaningful way. The color words heard and the colors themselves were telescoped into a meaningful relationship. Interpreting the symbols for the colors followed naturally.

In effect this Low group, constituting the slowest children in grade two in special service schools, may have reached, through stories read to them, the level identified by Gates in his first sub-test of reading readiness:

a) ability to listen to what the teacher is saying
b) ability to understand what is being said
c) ability to grasp and make use of everyday words and concepts
d) ability to interpret pictures

At almost eight years of age, the slowest children in these low-income schools were ready to read, and most did begin to do so. Perhaps there is a clue here to what happens to such children when the school starts them on skill learnings almost two years earlier, without sufficient attention to their enormous need for help in developing language power and their lack of awareness of the relation between meaning and symbols.

Middle

Listening evidently came more easily to the middle, or average classes; the four experimental teachers of the average classes never commented during their monthly conferences on the ability to listen as a new achievement in the way teachers of the slow classes did. From the start the children enjoyed hearing the stories read and browsing among the books afterwards. In addition, while some looked at the pictures, some tried to "read" the story from memory, and others asked the teacher what words in the books meant as they attempted really to read. The children expressed strong interest in taking the books home, but were not permitted to do so because the study called for their availability in the classroom at all times. When books of the same title were brought in from the library along with others, by the teacher, the children took these home by choice. Teachers stated with surprise that many children chose a book in preference to puzzles and games at their free time.

Despite the relative ease in listening and enjoyment, there were far too many words and concepts that were unfamiliar to the children to escape the teachers' notice, something no teacher had anticipated. Teachers reported constantly that if they attempted to explain all the unknown words, the story's continuity would be seriously jeopardized. Despite their partial understanding, the children listened with pleasure, and by December started to use an occasional word from the books in their spoken vocabulary. For example, after the Thanksgiving holiday, several children mentioned the *feast* they had had, using a word that had been explained in the book *Good Hunting, Little Indian* the week before, when no child had known it. Associations were not made on the oral level alone, however. In a class that heard the story *The Rice Bowl Pet*, there was an immediate recognition of the word *bowl* when it appeared in a book on Indian crafts that the teacher had brought in to show the children. The teacher had also suggested to these children that they draw a pet they would put into a rice bowl, and she would tell them how to spell the word for the pet. On a spelling test, days later, each child remembered the spelling of his "pet," e.g. turtle, rabbit, poodle, kitten. In another class, when the word *hill* was encountered in the reader, a child commented, "That's like the steep hill in *Pancho*."

The titles of the books apparently had much meaning for all the children, but whereas the slowest children learned to recognize them, the middle group frequently identified words from the titles out of context. E.g. in one class a child compared the library book title The Curious Cow with the study book title Curious George. There were several episodes in which the children used words from the titles to illustrate lessons in phonics.

A range of response comparable to the range within the entire group appeared in this middle group. The slowest among the middle children enjoyed looking at the pictures in the books and telling the stories to themselves,making no attempt to read. Among these were also children who had difficulty remembering the title. There were children who copied pictures, and many who asked the teacher to write what they dictated on their pictures. Many of the children illustrated episodes from the stories without looking at the books, with some originality appearing by the fourth month, although they still copied the titles. And a few of the brightest children wrote phrases from the books on their pictures, generally painstakingly copied. Story phrases and sentences began to appear in some children's writing in the spring.

The middle children commented on similarities in the details of different books. E.g. Andy and the Lion shows illustrations of a barefooted child, although the story is not concerned with this fact. But the reaction to Down Down the Mountain, which does deal with shoelessness, and which they heard later than Andy and the Lion, was, "These children don't have shoes either." Although they relished each book, and even fought over them, these children were not given to trying an unfamiliar book when given a choice. They tended to rely on the books that had been read, even though all books in the experiment were on open shelves in their classroom. By contrast, several children in the top classes enjoyed the challenge of selecting a new book for the teacher to read, going so far as to say afterwards, "I told you that would be a good one." In the middle group, even so unfamiliar a cover as the illustration for Crow Boy caused caution in one class and the children had a note of surprise in their voices the first time they heard the story and pronounced it good.

The middle group differed from the low group in its greater ability to differentiate. Their power to note differences and similarities had taken them past the non-reading stage, but once past that, they were struggling with the task of using reading techniques for reading purposes, i.e. to gain information, enjoy a story, or otherwise communicate with the printed message. Within that struggle their spread of success reflected not so much, or only, scores which ranged from 1.1 to 3.4, (forty-four out of a forty-nine scores fell in the 1.6-2.8 range), but the degree of perceptual sophistication and the power of classification to help them apply what theyunderstood. This is the area of development at this level of the reading process, i.e. second grade. Their power to differentiate was apparent in their ability to make comparisons and recognize words out of context; their power to generalize allowed them to utilize words orally which they had heard in another context, and to recognize a phonics principle these words illustrated.

Yet their growth in total language power, while definite, was on the whole insufficient. Past the first stages of minimal comprehension of language for meaning, they were still seriously lacking in vocabulary, in all likelihood an experiental deficit. Although their reading skill clearly grew, the gains did not add up to a year of growth on a standardized reading test for most of them. (Table XV, p. 99) Most of the children learned at a pace which seems to imply that the ability to conceive and apply principles imaginatively was not well developed. They had not made the leap into becoming readers. Although their motivation and interest were good, and they were capable of grasping part to whole relationships within the reading process, their functioning was still on a concrete, immediate basis. They were learning skills, but not yet using them as a means to an end.

HIGH

The children in the top classes loved the stories immediately, and according to one teacher were ready for the second level of the books almost from the start. They continued to enjoy Level One along with Level Two in a short time. But it was months before they could be completely comfortable at Level Three. This highest level among the books was the one at which the teachers of the top classes first felt that they faced serious deficits in vocabulary among these children. The

High group can thus be said to have suffered inadequacy of vocabulary as well as the others, but their basic vocabulary was considerably greater than both the middle and low classes. (See Tables IV and VI, pp. 89 and 91) A responsiveness to new words, and the use of them was reported by the teachers fairly soon in the study. In one top class, "discontented" was used immediately after the children heard The Horse Who Lived Upstairs. In November, in another class, after Timid Timothy was read, the word timid appeared several times in the children's conversations, apparently with the kind of relish at playing with words that appears at this age among many children. This same word, timid, was not recalled in May by a Middle group when the teacher, about to read Scaredy Cat, reminded them that they had heard a story on a similar theme earlier in the year. The name Timothy was more readily recalled than the descriptive timid.

Among these children in the top classes discussions were fuller when held around the stories than around other themes in the curriculum, but discussions were not difficult for them, with or without the stories. Like the other children in the study, these children in the High classes related the experiences in the stories to their own lives. Unlike the others, however, they yielded in time a promise of diminishing egocentricity. By the late spring, ten to fifteen children out of more than fifty were reading books on their own in which the identification was not dependent upon sensory experience. They were reading fairy tales, a simple biography of Lincoln, and books on science. The ability to identify with the less personal and concrete seems associated in time and maturity with the level of abstraction necessary for facile handling of the symbolic processes involved in reading. Within the High group as a whole, however, there were many children who were still immature in handling abstract concepts. One class, according to their teacher, had trouble using judgment or making comparisons of an abstract nature when they were using their workbooks. Although the class median was above grade level in reading at the ned of the year, the range within this High class went from 1.9 to 4.7, with more than half the children scoring below grade level. (See Table XXIII, p.131)

A major difference in the functioning of the High group and the Low and Middle, was in the quality of their composition writing. The High group wrote freely and eventually with some originality when allowed to write about what they wished. A comparison made by the investigator of compositions written by top control and experimental classes under identical instructions, revealed a strong trend among the control children to duplicate stories they had heard, with many representations of The Three Bears, Little Red Riding Hood, and The Three Little Pigs. The experimental children almost all wrote stories on original and personally meaningful themes. This difference might well be explored further.

The top group achieved fluency, individuality, and originality in the use of written symbols, an important level of competence at this age. Their median skill in reading was at the national norm for the grade, but more important was the

TABLE XXXII

RANGE OF POST-TEST SCORES ON METROPOLITAN READING ACHIEVEMENT TEST: LOW, MIDDLE, HIGH CLASSES, EXPERIMENTAL, CONTROL

	Slow . Experimental x Control	Middle . Experimental x Control	High . Experimental x Control	
4.8-4.9 + over			.	4.8- 4.9 + over
4.6 - 4.7			...	4.6 -4.7
4.4 - 4.5			...	4.4 -4.5
4.2 - 4.3			... xxx	4.2 -4.3
4.0 - 4.1			. xx	4.0 -4.1
3.8 - 3.9			... xx	3.8 -3.9
3.6 - 3.7			x	3.6 -3.7
3.4 - 3.5		. xx	... xx	3.4 -3.5
3.2 - 3.3		. xx	 xxxx	3.2 -3.3
3.0 - 3.1		 x	... xxxx	3.0 -3.1
2.8 - 2.9		... x	... xxxxxx	2.8 -2.9
2.6 - 2.7	.	 x	 xxxxx	2.6 -2.7
2.4 - 2.5	.	 xxx	 xxx	2.4 -2.5
2.2 - 2.3	..	 xxxxxxxx	. xxxxx	2.2 -2.3
2.0 - 2.1	. x	 xxxx	.. xx	2.0 -2.1
1.8 - 1.9	 xxx	 xxx	.. xxx	1.8 -1.9
1.6 - 1.7	 xxxxxxxxxxx	 xx	x	1.6 -1.7
1.4 - 1.5	. x	.		1.4 -1.5
1.2 - 1.3	... xxxxxxx	. xx		1.2 -1.3
1.0 - 1.1	 xxxxxxxxxx	xx		1.0 -1.1

N=26 Experimental
33 Control

N= 71 Experimental
29 Control

N=44 Experimental
44 Control

evidence of their considerable alertness to books as a source of pleasure and information. Large numbers of the children were "readers" in the best sense, selecting books for themselves with an assertiveness that reflected their assumption of responsibility for reading as a pleasurable and wanted experience.

Support for the Story Criteria

The appropriateness of the story choices in this research was supported by the reports of the experimental teachers who spoke regularly of the children's identification with the events and characters in the books, even though obvious external features in the story plot might be quite remote from the children's lives.

For example, Margaret Wise Brown's The Dead Bird led to the comment one cold Monday morning when the turtles were found frozen, "If it weren't so cold, we could bury the turtle like the children buried the bird in The Dead Bird." Or the story of Lee Fong and His Toy Junk inspired some children to describe their own fishing experiences. On the other hand, in The Story of Ping, Ping was identifiable completely on the emotional level, and not on the action level of reality. Children know very well what it feels like to find themselves unexpectedly in a situation that will lead to punishment, and more often than not they are in such situations quite involuntarily and without deliberate misbehavior. The fear of punishment is very real, and so is the tendency to run away from what is painful or unpleasant. Like Ping, young children are learning to evaluate the relative place in their lives of different kinds of experiences, and like Ping, they must, for survival, often settle for safety.

Thus, story after story gave the children the opportunity to share feelings, as well as to identify occasional familiar details, of the characters whose experiences made sense within their scope of comprehension. It is probably not accidental that the five books which were unanimously and heartily approved by all classes, in one way or another touched on children's feelings about being subordinate to adults. In The Five Chinese Brothers, authority is obviously outwitted, to the great delight of the children; in The Six Foolish Fishermen and Nobody Listens to Andrew adults can be laughed at for knowing less than a child; and in two Curious George books used, George breaks all the rules established by adults and gets away with it while in the pursuit of that time-honored childhood drive so frequently a cause for punishment -- curiosity.

It would seem reasonable that emotional identification with book characters and experiences in a context that extends beyond the child's experience but whose conceptual core is comprehensible, would help the child extend his existing experience to include more of the unfamiliar.

One incident that occurred in almost every class illustrates this point. In each case the teacher read "Little Blue, Little Yellow, a story of friendship between blobs of color. When the two hug, the text and illustration clearly describe an overlapping portion of green. "I don't believe it," said a child in one class. "Is that really true?" asked children in another. "That can't happen," they said in a third, and so on. Each teacher allowed the experimentation with paint that convinced the children that blue and yellow when blended do make green. From the slowest to the brightest, this was new information for this group of seven-year-olds. One slow class became so absorbed in the blending of paints that 3 o'clock came upon them unexpectedly and they stayed beyond their going-home time to clean up after their satisfying experience. Their teacher, who had perforce stayed too, reported this incident with surprise. "They didn't mind staying. They had a marvelous time."

Teachers reported that one of the effects of the story-reading program was an increase in information which was apparent in the children's free associations, comparisons and recall of words, events and ideas. Unfamiliar words, concepts, and factual information were apparently received and retained by the children rather more fully than the free association vocabulary test by itself could reveal. All teachers spoke of this accumulation of information as a surprising by-product of the program. Teachers reported that the children knew what a *Chinese junk* was, (story of *Ping*, *Lee Fong and the Toy Junk*), they learned what *unravel* means (*No Roses for Harry*), what a *mountain* is (*Down, Down the Mountain*, *Timothy Robins Climbs The Mountain*), what *chewing gum trees* are (*Third Monkey*), what *awnings* and *hurdy-gurdy* men are (*The Little Carousel*), what *matadors* and *picadores* do (*The Story of Ferdinand*) and much more. Words that were hitherto unfamiliar entered the realm of the known, although for most of the children *knowing* did not mean using the word in their daily speech. Yet newly learned words did appear, in all the classes. "Timid" was a word learned early in one class, and "curious" a word that was popular in all. The teachers reported unexpected appearances of words, such as the rejoinder of one class to a teacher's saying, "I am so surprised at you," with, "Oh, she's *amazed*"; or the completion by a child of a teacher's angry, "You're so-so," with "Curious!" followed by wild laughter from the class. Words not spoken were obviously understood as they reappeared in new stories: *steep*, *bib*, *quarrel*, *patient*, *tilted*, *rafter*, *log*, *paw*, *strut*, *harvested*, *feast*, *bowlegged*, *waddled*, *shy*, *discontented*, *hare*, and others. The teachers, accustomed to working in disadvantaged schools, were surprised each time a "good" word appeared.

There was evidence of conceptual clarification as a result of the stories and the discussions that followed them. The most dramatic of these was perhaps the insight that changed one little boy's entire approach to reading. In this case the story read was *My Dog is Lost*, by Ezra Keats, in which a Spanish-speaking new arrival in the city hunts for his lost dog with the help and interpretation of a motley crew of neighborhood children. By gesture and expression he describes his dog, accompanying his actions with Spanish words. The children in the story interpret the gestures, translating their meaning into English for themselves, and incidentally the listeners. The dramatic illustrations which include words in Spanish at strategic places, help the Spanish-English communication further. When this story was read for the first time to a bottom-of-the-grade class, a child spoke hesitantly, but with amazement, to his teacher. "You know what, teacher? A word in English means the same as a word in Spanish!" "Red" and "roja" had appeared in the story, and Edwin, until then a non-reader, although one of the oldest in his second grade, learned the word red on the color chart which had been up for weeks in that classroom, and to which he had been oblivious. Edwin's flash of comprehension of a concept basic to his learning to read proved to be of lasting value. He told his teacher later that he never knew that Spanish words could be in a book. Painfully and slowly he inched toward progress. Although only on the second pre-primer in January, he could recognize the titles of books read on the class chart, distinguishing the Harry, the Dirty Dog from No Roses for Harry, recognizing One Mitten Lewis and others. His high motivation and interest were clearly obvious. His tardiness ceased; he came to school clean. He answered when spoken to, and, quoting his teacher, "Spoke in sentences more than before." At the beginning of the school year the speech teacher had assumed he was retarded, because he did not respond to his name. Both the speech teacher and his classroom teacher expressed amazement at how hard this child tried to learn to read. By the end of the second grade, he was not yet at second grade basal reader level, but his teacher felt so strongly that he would make it that she promoted him.

More often the concepts learned and understood were not closely related to a child's problem. Following a reading of *Timid Timothy*, a child asked why the animals in the illustrations were so much bigger than Timothy the cat. Guesses abounded. "The kitten hasn't grown much." "The zoo keeper feeds the animals well, and they grow big," were typical responses. Yet when the teacher suggested that the animals looked so big to Timothy because he was scared, the children acknowledged the truth of such a statement with a sense of wonder and recognition. "How does he feel now?" asked the teacher, when Timothy won his first victory. "He's a brave cat," said one child, "Bold," said another, "Proud of hisself" said a third. *Brave*, *bold*, *proud*. All words from that book about a kitten who learned to cope with fear! In one slow class, the story *Madeline* finally clarified the concept of rhyming with which the teacher had been struggling in order to help the children with their learning of phonics. After she had read *Down Down the Mountain*, the teacher of an average class asked, "Why would people *make* soup?" and a child answered, "Because they (in the story) haven't much money and live in the mountains." But the association of newly learned words with their meaning is not always smoothly accomplished, and we do not know how often children distort meaning from poorly digested information, as the child did who pointed to the wild hog in *Good Hunting, Little Indian* that was eventually eaten, and said, "This is the feast that runs after the Indian boy."

Evidence for the general suitability of the story criteria for this population appears in the comments gleaned from the monthly conferences with the teachers, and quoted below. Each statement was made by a teacher of an experimental class to the investigator during a monthly conference.

"In several classes the children applaud after the story is read."

"Children who could not be trusted with books in September now take them home, handle them with pride, and protect them righteously from little brothers and sisters."

"Children (in all classes) browse among the books, try to read them and in many cases choose books as a free choice activity and do read them."

"In some classes there is bickering about who will browse in a currently read selection or a favorite older story."

"From the slowest to the brightest there are children in every class who are reading the books in the study, and going from one book to another over the weeks."

"Children ask the teacher for help with unfamiliar words, or they 'manage.'"

"Some children have favorite stories to which they become attached, e.g. Six Foolish Fishermen was borrowed constantly by a child in an average class. Little Blue, Little Yellow was "read" every day by a slow little girl who called it "her" book.

"Children in one bright class always asked the librarian on their weekly visit, 'Do you have a copy of (title in the study group)' and could not be easily sold on other books. 'They knew what they wanted.'"

"One child in a slow class wanted to copy (and study) the hard words in a book so she could then read the book easily, then copy the hard words in all the books so she could read them all.

The children's responses to their books justified the assumptions of the investigator. Every teacher in the experimental program described the children's pleasure in the books with consistency. Gradually their own pleasure was added to the reporting. As one teacher said, by the end of the third month of the program, "This program is good, although some of the books are too hard for the children in my class (low). There is indirect educational benefit. It's coming in through the back door.

The Strength of Individual Differences

The consistency with which the means in both experimental and control groups retained a rank order parallel to the placement of Low, Middle and High within the grade is worthy of special note. The data reveal a progression in language development at the seven to eight year level of one socio-economic group that proceeds along a continuum which bears startling resemblance to the more familiar maturational levels that develop as a consequence of age. These levels of language learning begin with comprehension in infancy, develop into oral language in the pre-school years, and culminate in the power to interpret the written symbols for speech in the school years. The means of the vocabulary lists for Low, Middle and High classes show sharp gradation in number of words (Table IX), as well as gradation in kinds of words used (Table VI). Quality scores" appear on a sloping curve beginning with greatest and moving to lesser frequency of the use of words in the general child population (Tables XIX and XX).

What this gradation in the range of individual differences among children of the same age and socio-economic class can mean, is hazardous to say. The possibility that heredity is a factor is of course very real. But as long as the knowledge about the functioning of the brain, or the relation of body chemistry to degree and kind of responsiveness remains as meager as it is at this time, we cannot lightly decide that a physical and therefore inherited base for learning is necessarily the cause of these children's difficulty. But in placing emphasis on changes in the environment as a means of affecting learning, we cannot dismiss either the appearance of a curve of achievement and functioning which appeared in both the experimental and the control groups, regardless of the environmental difference which was created by the experimental variable.

We can recognize, however, regardless of cause, that the majority of the children in this population are seriously handicapped in their initial comprehension of language, and inevitably handicap in their oral or written use of words follow. In this research these handicaps were diminished as a consequence of the reading program. The correlation between vocabulary knowledge and scores on reading tests was .8 in this research, corroborating other studies and showing that the reading skill of disadvantaged children is unlikely to improve unless their basic comprehension of the language in which they are taught to read is stronger than it is at present for all but the brightest children, and even they benefited from help in this regard. The need for explanation of words in the stories never ceased for the entire range of experimental classes, despite the fact that the conceptualization of experiences, events and ideas in the stories were not beyond the comprehension capacity of a normal distribution of seven to eight year olds. Thus, whereas experiences encountered in the stories could be understood, the many ways of expressing experience could not be.

Pictures as aids to clarification of content remained important throughout the reading program, with only the top classes becoming a little less dependent on them near the end of the year. Yet the span of attention increased sufficiently so that children could hear, comprehend and respond to increasing lengths of verbalization of increasing complexity. Indications appeared that such attention responds to training, if the children's interest can be attained. How long such training shall take, and to what ends it can reach, are as yet unknown. Certainly the slowest group in this study, which according to their teachers showed a dramatic change in the power to listen, was not able to cope with Poppy Seed Cakes, a book too long for one sitting, and to be read in chapters. This story was enjoyed by the Middle classes only in proportion to the teacher's story reading skill. It was loved by the top classes. It was deliberately introduced for its greater length and plot involvement. Like the other stories, it has its base in the kind of adventure that could seem real to the imagination of a child. Children and animals tangle with adult standards in a series of mishaps and mischief, the whole sprinkled with the pleasures of food, presents, and physical activity. But at some points the concepts move a bit farther away from the concrete than the others, and so, what with the length and complexity, it fell beyond the scope of the slower children. Whether time coupled with constant attention to the language-thought deficit can increase the power to handle abstract concepts better remains an unknown. All that this research could show was that the early stages in the process can be influenced by appropriate experiences with literature.

Since reading is described as the ability to follow sequence of thought in print, hearing stories out loud must also involve the ability to follow sequence of thought. The experience of associating words with thought sequences, rather than with description, command or demand, must be assimilated in sufficient degree so that a substantial vocabulary can be available to reflect variety of experience, in turn to be used to denote variety of experience. In dealing with the ability to listen, and/or the ability to read, we seem in reality to be dealing with the process of thinking, which in this research was revealed in the ease or difficulty with which children responded to the several levels of complexity of conceptualization embodied in the levels of the stories through plot, intricacy of language and total length. The ability to perceive details in relation to the whole; to conceive of time, space and human relationships as one hears about them and to retain these in a shifting framework of sequence and tangentiality within the length and breadth of the spoken statement, are all aspects of the thinking process. These aspects of thought processes, combined with the ability to organize and integrate parts and sequences, seem associated with the ability to differentiate written symbols from one another, relate parts of a symbol to the whole, as in phonics, and maintain the movement and flow of the total meaning of the printed passage while struggling with the specific elements of the technical requirements in reading. Before children can utilize such thought processes in a frame of reference involving unfamiliar mechanics, as in reading, they must first have strengthened these elements in the thinking process and gained adequately in the use of words to express thought at different levels of complexity. The approach to improving the reading skills of the disadvantaged child must be made through an appeal to the actively thinking and feeling self within the child as he perceives his interests and concerns in the surrounding environment. The teacher's role is to strengthen the clarity of his thinking and the scope of his experience by her attention to his responses. Vocabulary, and the relationship among words, meaning, and experience, can be a natural consequence of so involving a child. Literature is a basic medium to be used in extending environment and clarifying thought processes. It is obviously not the only one.

SUMMARY

1. The importance of reading to children as a precursor to success in learning to read has been shown to be vital in the case of socially disadvantaged children who do not have experiences with books at home.

2. The relationship believed to exist between oral language and reading has been confirmed. At the same time, it has been shown that primary grade children retarded in reading strengthen their language power when language learning is associated with experiences of intellectual and emotional meaning for the age and stage of development of the child.

3. Socially disadvantaged children come to school with a paucity of the kinds of words more likely to be found in books than in daily speech at home. They need continuous clarification of the words they hear in story books, even when these are suited as a whole to their level of maturity.

4. The slower the children are in academic progress, the more difficult it is for them to deal with words in isolation, unrelated to a totally meaningful experience. Vocabulary thus appears to be learned best by young children in a context of emotional and intellectual meaning.

5. Ego-involvement and comprehension of concepts are important criteria in the selection of stories to read to disadvantaged children. The role of these factors in stimulating motivation to read while at the same time strengthening language power

seems to be an indispensable one in the school learning of the slowest non-readers in the early primary grades.

6. Continued exposure in early childhood to stories read aloud apparently affects basic, beginning stages of the transition that must take place in growth from comprehension of oral language to the final use of symbols. The effect seems related to the stage along the continuum at which the child is functioning at the time of exposure.

7. Continued and regular listening to story books chosen for their emotional appeal and ease of conceptualization seems to aid facility in listening, attention span, narrative sense, recall of stretches of verbalization, and the recognition of newly learned words as they appear in other contexts.

8. Individual differences play a major role in learning style and aptitude at the same age and within the same socio-economic class. The data suggest that among children of the same age and low socio-economic class, language ability exists along a continuum at one end of which is inadequate comprehension of the spoken word and limited concentration in listening. The continuum proceeds through stages of oral usage of differing complexity, and ends at ability to handle the symbols of reading and writing at differing levels of facility. While comprehension, oral language and the use of written symbols may and do occur in the same child at the same time, the levels of competency vary considerably across the age group in an overlapping pattern of increasing skill.

9. Levels of competency in comprehension, oral language and reading are interrelated, but facility in the last, i.e. the use of symbols, seems to be dependent on facility in the first two, i.e. oral language and comprehension. This would imply that comprehension of meaning is basic to growth in the language arts.

Among the implications of this research is the one that teachers, especially teachers of the disadvantaged, must be familiar with children's literature suitable to the age and stage of development of the children they are teaching.

NEED FOR FURTHER RESEARCH

1. A more precise knowledge is needed of the earliest and latest ages at which introduction to regular story reading can be effective in helping children become readers. While there is evidence that good readers have had pre-school exposure to books read to them, there is no knowledge about the upper age level at which listening to stories could be a useful aid in language learning and reading among culturally limited children.

2. The span of time needed to establish motivation and readiness firmly enough for continuous and self-directed reading needs to be tested in relation to the age at which exposure to books is first begun.

3. Research is needed to analyse children's vocabulary as a possible indicator of their level of perception in various phases of intellectual and emotional growth.

4. Further research is also needed in determining whether a relationship exists between children's capacity for dealing with words in isolation and the ability to classify as a phase of the total thinking process.

BIBLIOGRAPHY

Alden, Clara; Sullivan, Helen B.; and Durrell, Donald O. Frequency of Special Reading Disabilities, *Education*, 621, September 1941, pp. 32-36.

Almy, M.C. *Children's Experiences Prior to First Grade and Success in Beginning Reading*. Contributions to Education #954, New York: Teachers College Bureau of Publications, 1949.

Artley, A. Sterl. Oral-Language Growth and Reading Ability, *Elementary School Journal*, February 1953, pp. 321-327.

____________. Research Concerning Inter-Relationships Among the Language Arts, *Elementary English*, 27, December 1950, pp. 527-37.

Association for Supervision and Curriculum Development. *Learning and Mental Health in School*, 1966 Yearbook, Washington, D.C.: The Association, 1966.

Ausubel, David. *Theory and Problems of Child Development*. New York: Grune and Stratton, 1958.

____________. Ego Development Among Segregated Negro Children," *Education in Depressed Areas*, ed. H. Passow, New York: Teachers College Press, 1963.

Becker, H.S. Social Class Variations in the Teacher-Pupil Relationship, *Journal Educational Sociology*, 25, April 1952, pp. 451-456.

Berko, Jean. The Child's Hearing of English Morphology, *Word*, 14, 1958, pp. 150-77.

Bernstein, Basil. a. Some Sociological Determinents of Perception, *British Journal of Sociology*, 9, 1958, pp. 159-174.

____________. b. "A Public Language, *British Journal of Sociology*, 10, December 1959, pp. 311-327.

____________. c. "Language and Social Class," *British Journal of Sociology*, 11, 1960, pp. 271-276.

____________. d. Social Class and Linguistic Development: A Theory of Social Learning, in *Education, Economy and Society*. A. H. Halsey, J. Floud, and C.A. Anderson, eds. New York: Free Press of Glencoe, 1961.

Betts, Emmett. "Interrelationship of Reading and Spelling, *Elementary English Review*, 22, January 1945, pp. 12-23.

Bloch, B. "Outline of Linguistic Analysis, *Linguistic Society of America*,Baltimore, 1942.

Bossard, James H.S. "Family Modes of Expression, *American* Sociological Review, 10, 1945, pp. 226-237.

Bossard, James. *The Sociology of Child Development*. Rev. ed. New York: Harper & Bros., 1954.

Bradley, Martha; Cahill, Loretta and Tate, Harry. "Acquisition of a Reading Vocabulary, *Elementary English Review*, 18, January 1941, 32, pp. 19-21.

Bronfenbrenner, Urie. "Socialization and Social Class Through Time and Space, in Maccoby, E., Newcomb, T.H. and Hartley, E.L. (eds.) *Readings in Social Psychology*. 3rd. ed., New York: Holt, Rinehart and Winston, 1958.

Buckingham, B.R. "Language and Reading, *Elementary English Review*, 17, March 1940, pp. 111-116.

Buckingham, B.R. and Dolch, Edward. *A Combined Word List*. New York: Ginn and Company, 1936.

Carroll, John. "Language Development, *Encyclopedia of Educational Research*, 1960, pp. 744-752.

Church, Joseph. *Language and the Discovery of Reality*. New York: Random House, 1962.

Cohn, Werner. "On the Language of Lower Class Children, *School Review*, 67, Winter 1959, pp. 435-440.

Colvin, Cynthia, M. "A Re-examination of the Vocabulary Question, *Elementary English*, 28, v.6, October 1951, pp. 350-356.

Dale, Edgar. *Children's Knowledge of Words*. Bureau of Educational Research and Service, Ohio State University, 1960.

Davis, Allison. *Social Class Influences Upon Learning*. Cambridge: Harvard University Press, 1948.

______________. *Children of Bondage*. Washington, D.C.: American Council on Education, 1940.

Dawe, Helen C. "A Study of the Effect of an Educational Program Upon Language Development and Related Mental Functions in Young Children, *Journal Experimental Education*, 2, December 1942, pp. 200-209.

Dawson, Mildred A. Language Learning Related to Race, *Elementary English*, 28, No. 7, November 1951, pp. 402-409.

Deutsch, Martin. Minority Groups and Class Status as Related to Social and Personality Factors in Scholastic Achievement, Monograph published by Society for Applied Anthropology, New York: 1960.

Dolch, Edward W. *Reading and Word Meanings*. Ginn & Company, 1927.

Ervin, Susan and Wick R. Miller. Language Development, Ch.3, *Sixty-second Yearbook* of the National Society for the Study of Education, 62, 1963, pp. 108-143.

Feifel, H. and Lorge I. Qualitative Differences in the Vocabulary Responses of Children, *Journal Educational Psychology*, 41, 1950, pp. 1-18.

Figurel, J. Allen. The Vocabulary of Underprivileged Children, Unpublished Doctoral Dissertation, University of Pittsburgh, 1948.

Fisher, John L. Social Influence on the Choice of Linguistic Variant, *Word*, v. 14, 1958, pp.47-56.

Gates, A.I. *Manual of Directions for Gates Reading Readiness Tests.* New York: Bureau of Publications, Teachers College, Columbia University, 1942.

Gaugh, H.G. Relationship of Socio-economic Status to Personality Inventory and Achievement Tests Survey, *Journal of Educational Psychology*, 37, 1946, pp. 527-540.

Goodenough, Florence L. The Reading Tests of the Stanford Achievement Scale and Other Variables, *Journal of Educational Psychology*, 16, November 1925, pp. 523-31.

Gray, William & Holmes, Eleanor. *The Development of Meaning Vocabularies in Reading*, Publication of the Laboratory Schools of the University of Chicago, #6, Chicago: University of Chicago Press, 1938.

Guilfoile, Elizabeth. Reality in the Language Arts Program, *Elementary School Journal*, 42, September 1951, pp. 41-49.

Harris, Albert. *How to Increase Reading Ability*. New York: Longman's Green & Company, 1947.

Herzler, J.O. Toward a Sociology of Language, *Social Forces*, December 1953, v. 32, 2, 109-119.

Hieronymous, A.N. A Study of Social-Class Motivation: Relationships Between Anxiety for Education and Certain Socio-Economic and Intellectual Variables, Journal Educational Psychology, 42, 1951, pp. 193-205.

Hildreth, Gertrude. An Individual Study in Word Recognition, Elementary School Journal, 35, April 1935, pp. 606-619.

______________. Inter-Relationships Among the Language Arts, Elementary School Journal, 48, June 1948, pp. 538-549.

______________. Readiness for School Beginners. New York: World Book Company, 1950.

Hill, Edwin H. and Giammatteo, Michael C. Socio-Economic Status and Its Relationship to School Achievement in the Elementary School, Elementary English, March 1963, pp. 265-270.

Hoijer, H. The Relation of Language to Culture, in A.L. Kroeber (ed.) Anthropology Today. Chicago: University of Chicago Press, 1953.

Horn, Ernest. Language and Meaning, Chapter 11, The Psychology of Learning, Forty-first Yearbook, Part II, National Society for the Study of Education. N.B. Henry (ed.) Bloomington, Illinois, 1942, pp. 377-413.

__________. Children's Spoken Vocabulary, in report of The National Committee on Reading, Twenty-fourth Yearbook, National Society for the Study of Education, Part I, 1925.

Hughes, Virgil. A Study of the Relationship Among Selected Language Abilities, Journal Educational Research, 47, October 1953, pp. 97-106.

Hughes, Marie and Vivian Cox. The Language of First Grade Children, Elementary English, 26, 1949, pp. 373-80.

International Kindergarten Union. Study of Vocabulary of Children Before Entering First Grade. Washington: 1928.

Irwin, O.C. Infant Speech: The Effect of Family Occupational Status and of Age on Sound Frequency, Journal of Speech and Hearing Disorders, 13, 1948, pp. 320-323.

__________. Infant Speech: Effect of Systematic Reading of Stories, Journal Speech and Hearing Disorders, 3, June 1960, pp. 187-190.

Keshian, Jerry L.D. Experiences and Personality Traits Common to Children Who Succeed in Reading. New York University Unpublished Doctoral Dissertation, 1960, 124 pp.

Kluckhohn, Clyde. "Culture and Behavior, Chapter 25 in *Handbook of Social Psychology*, Gardner Lindzey, (ed.) Massachusetts: Addison-Wesley, 1954.

Laird, Charlton. *The Miracle of Language*. A Premier Book, Fawcett Publication, 1953.

Link, Henry and Hopf, Harry. *People and Books: A Study of Reading and Book-Buying Habits*. Book Industry Committee, Book Manufacturers Institute, New York: 1946.

Loban, Walter. U.S. Office of Education Study of Language Development, Language Ability in the Middle Grades of the Elementary School, Berkeley: University of California, Department of Education, 1962.

Loeb, M.B. Implications of Status Differentiation for Personal and Social Development, *Harvard Education Review*, 23, Summer 1953, pp. 168-174.

Loevinger, J. Intelligence as Related to Socio-Economic Factors, *Thirty-Ninth Year Book*, Part I, Chicago, 1940, pp. 159-210.

Looby, Ruth. "Understandimgs Children Derive from their Reading, *Elementary English Review*, 16, February 1939, pp. 58-62.

Lorge, Irving. "Readability Formula- An Evaluation, *Elementary English*, 26, February 1949, pp. 86-95.

____________. "The English Semantic Count, *Teachers College Record*, 39, October 1937, pp. 65-77.

Martin, Clyde. Developmental Interrelationships Among Language Variables in Children of First Grade, *Elementary English*, March 1955, pp. 167-171.

Milner, Esther. "A Study of the Relationship Between Reading Readiness in Grade One Schoolchildren and Patterns of Parent-Child Inter-action, *Child Development*, 22, 1951, pp. 95-112.

Monroe, Marian. *Children Who Cannot Read*. University of Chicago Press, 1932.

McCarthy, Dorothea. Language Development in Children, in L. Carmichael (ed.) *Manual of Child Psychology*, ed. 2, New York: John Wiley and Sons, 1954, pp. 492-630.

________________. *The Language Development of Pre-School Children*. Minneapolis: University of Minnesota Press, 1930.

McClaren, Violet M. "Socio-Economic Status and Reading Ability," A Study in Infant Reading, Studies in Reading, v. 2, Scottish Council for Research in Education, University of London Press, Ltd., 1950.

McKee, Paul. Vocabulary Development, Chapter 9, Thirty-Sixth Yearbook, National Society for the Study of Education, Part I, pp. 277-302.

Noel, Doris L. A Comparative Study of the Relationship Between the Quality of the Child's Language Usage and the Quality and Types of Language Used in the Home, Journal of Educational Research, v.47, November 1953, pp. 161-167.

Ogden, C.K.; Richards, I.A. The Meaning of Meaning. New York: Harcourt, Brace & Company, 1930.

__________. The System of Basic English. New York: Harcourt, Brace and Company, 1934, pp. 309-316.

Olson, W. "An Adaptation of Instruction in Reading to the Growth of the Child," Educational Method, 20, November 1940, pp. 71-79.

Osborne, W.J.; Huntington, Mirriel, and Meeks, Viola. The Language of Relativity as Related to Reading Readiness, Journal of Educational Research, 39, April 1946, pp. 583-601.

Paterra, Mary Elizabeth. A Study of 33 WISC Scattergrams of Retarded Readers, Elementary English, April 1963, pp. 394-405.

Piaget, J. Logic and Psychology, New York: Basic Books, 1957.

Platter, Emma E.; Platter, Stanton D.; Sherwood, Clarence; Sherwood, Sylvia. "Relationship Between Reading Retardation and the Measurement of Intelligence," Personnel and Guidance Journal, 38, 1959, pp. 49-51.

Plessas, G.P. and Oakes, C. "Pre-Reading Experiences of Selected Early Readers, Reading Teacher, January 1964, pp. 241-245.

Paulin, Alda. A Study of the Relation Between Reading and Oral Vocabulary of Elementary School Children, Unpublished Doctoral Dissertation, New York University, July 1959.

Riessman, Frank. The Culturally Deprived Child. New York: Harper and Bros., 1962.

Rinsland, Henry D. Basic Vocabulary of Elementary Schoolchildren. New York: The Macmillan Company, 1947.

Russell, Ralph D. "The Relative Effectiveness of Presenting Verbal Material Orally as Measured by the Amount of Recall. Unpublished Doctoral Dissertation, University of Iowa, 1923, 126 pp.

Russell, David and Ibraham Q. Saadeh. Qualitative Levels in Children's Vocabulary," *Journal Educational Psychology*, 53, August 1962, pp. 170-174.

Sapir, Edward. Language, *Encyclopedia of the Social Sciences*, v.9, pp. 155-169.

Schatzman, L. and Strauss A. "Social Class and Modes of Communication, *American Journal of Sociology*, v. 60, January 1955, pp. 329-338.

Seegers, J. Conrad. Language in Relation to Experience, Thinking and Learning, Ch. 3, *Forty-third Yearbook, Pt. 2*, *National Society for the Study of Education*, 1944.

______________. Recent Research in Vocabulary Development," *Elementary English*, 23, February 1946, pp. 61-68.

Serra, Mary C. How to Develop Concepts and Their Verbal Representations, *Elementary School Journal*, 53, January 1953, pp. 275-285.

Sheldon, William, and Carillo, L. "Relation of Parents, Home and Children's Reading, *Elementary School Journal*, 52:5, January 1952, pp. 262-70.

Shire, Sister Mary Louise. The Relation of Certain Linguistic Factors to Reading Achievement of First Grade Children. Unpublished Doctoral Dissertation, Fordham University, 1945, 166 pp.

Shirley, M.M. "Common Content in the Speech of Pre-School Children, *Child Development*, 9, December 1938, pp. 333-348.

Smith, Dora V. "Language Arts in the Life of the School," *Elementary English Review*, 21, May 1944, pp. 161-167.

Smith, M.E. An Investigation of the Development of the Sentence and the Extent of Vocabulary in Young Children," University of Iowa Studies in Child Welfare, No. 3, 1928.

__________. "Some Light on the Problem of Bi-lingualism as Found From a Study of the Progress in Mastery of English Among Pre-school Children of Non-American Ancestry in Hawaii. Genetic Psychology Monograph, 21, 1939, pp.119-284.

Smith, M.K. "Measurement of the Size of General English Vocabulary Through the Elementary Grades and High School," *Genetic Psychology Monograph*, 24, 1941, pp. 211-345.

Spencer, Edward M. "Retention of Orally Presented Materials," Unpublished Doctoral Dissertation, University of Iowa, 1940, 131 pp.

Strickland, Ruth. The Language of Elementary Schoolchildren: Its Relationship to the Language of Reading Text--Books and the Quality of Reading of Selected Children. Bulletin of the School of Education, Indiana University, v. 38, No. 4, July 1962.

Templin, Mildred. Relation of Speech and Language Development to Intelligence, and Socio-economic Factors, *Volta*, v.60, September 1958, pp. 331-334.

Thomas, D.R. Oral Language Sentence Structure and Vocabulary of Kindergarten Children Living in Low Socio-economic Areas," Unpublished Doctoral Dissertation, Wayne State University, 1962.

Thorndike, E.L. and Lorge, I. "*The Teacher's Wordbook of 30,000 Words.* New York: Bureau of Publication, Teachers College, Columbia University, 1944.

Tinker, M.A.; Hackner, F.; and Wesley, M.W. "Speed and Quality of Association as a Measure of Vocabulary Knowledge. *Journal of Educational Psychology*, 31, 1940, pp. 575-82.

Tomlinson, Ethel. "Language Arts Skills Needed by Low Class Children." *Elementary English*, v. 33, 1956, p. 279.

Vygotsky, L.S. *Thought and Language*. New York: John Wiley and Sons, 1962.

Warner, W.L.; Meeker, M. and Eels, L. "Social Status in Education, *The Phi Beta Kappan*, 30, December 1948, pp. 113-49.

White, R.W. "Motivation Reconsidered: The Concept of Competence, *Psychological Review*, 66, 1959, pp. 297-333.

Whorf, Benjamin. *Language, Thought and Reality*. New York: Wiley and Sons and the M.I.T. Press, 1956.

Worbois, G.M. "Language Development in Two Different Rural Environments," *Child Development*, 13, 1942, pp. 175-180.

Young, F.M. "An Analysis of Certain Variables in a Developmental Study of Language. *Genetic Psychology Monograph*, 23, 1941, pp. 3-141.

Young, F.M. "Certain Social Indices in the Language of Pre-School Subjects," *Journal of Genetic Psychology*, 61, 1942, pp. 109-123.

Young, William E. "Relation of Reading Comprehension and Retention to Hearing Comprehension and Retention." Unpublished Doctoral Dissertation, University of Iowa, 1930, 344 pp.

APPENDIX I

THE ORIGINAL ONE HUNDRED BOOKS, GROUPED IN LEVELS ONE, TWO, THREE, WITH JUDGES' VALIDATION

LEVEL ONE

Author	Title	Publisher	Year	Judges 1	2	3	4
Beim, Jerrold	Smallest Boy in the Class	Morrow	1949	x		x	x
Beim,	Andy and the School Bus	Morrow	1947	x	x	x	x
Bennett, Ramey	The Secret Hiding Place	World	1960	x	x	x	x
Benton, Robert	Little Brother, No More	Knopf	1960				
Black, Irma	Night Cat	Holiday House	1957	x	x	x	
Brown, Marcia	The Little Carousel	Scribner	1946	x	x	x	x
Brown, M.W.	Noisy Book	Scott	1939	x		x	
Brown, Margaret Wise	Four Fur Feet	Scott	1961	x	x	x	
Brown,	The Dead Bird	Young Scott	1958	x	x	x	x
de Reginiers, Beatrice	The Giant Story	Harper	1953	x	x	x	x
Duvoisin, Roger	The Miller, His Son and Their Donkey	Whittlesey	1962	x			x
Duvoisin,	Petunia Beware	Knopf	1958	x			x
Fatio, Louise	The Happy Lion	Whittlesey	1954	x	x	x	x
Flack, Marjorie	Angus and the Ducks	Doubleday	1931	x		x	x
Il. by Galdone	The Hare and the Tortoise	Whittlesey	1962	x			x
Guilfoile, Elizabeth	Nobody Listens to Andrew	Follettq	1957		x		x
Hogan, Inez	The Littlest Bear	Dutton	1959	x			

Author	Title	Publisher	Year	Judges 1	2	3	4
Kay, H.	One Mitten Lewis	Lothrop	1955		x	x	
Keats, Ezra Jack	The Snowy Day	Viking	1962	x	x	x	x
Krasilovsky, Phyllis	Scaredy Cat	Macmillan	1959	x			x
Krauss, Ruth	Growing Story	Harper	1947	x	x	x	
Langstaff, John	Over in the Meadow	Harcourt Brace	1957	x	x		x
Lionni, Leo	Little Blue and Little Yellow	McDowell, Oblensky	1959	x			x
McCloskey, Robert	Blueberries for Sal	Viking	1948	x	x	x	x
Parish, P.	Good Hunting, Little Indian	Scott	1962	x			
Rey, H.A.	Curious George	Houghton Mifflin	1941	x	x	x	x
Slobodkin, Florence and Louis	Too Many Mittens	Vanguard	1958	x	x		x
Slobodkina, Esphyr	Caps for Sale	Scott	1947	x	x	x	x
Thompson, Vivian	Sad Day, Glad Day	Holiday	1962	x	x		
Tresselt, Alvin	Hi, Mister Robin	Lothrop, Lee & Shepard	1950	x	x		x
Wiese, Kurt	The Rabbit's Revenge	Coward McCann	1940	x			x
Will and Nicholas	Finders Keepers	Harcourt	1951	x	x	x	x
Williams, Garth	The Rabbit's Wedding	Harper	1958	x			
Yashima, Taro	The Umbrella	Viking	1958	x	x		x
Zion, Gene	Harry, The Dirty Dog	Harper	1956	x			x
Zion,	No Roses for Harry	Harper	1958	x	x		x

LEVEL TWO

Author	Title	Publisher	Year	Judges			
				1	2	3	4
Anderson, C.W.	The Crooked Colt	Macmillan	1936	x	x		x
Ardizzone, Edward	Johnny the Clockmaker	Henry Z.Walck	1960	x			
Bemelmans, Ludwig	Madeline	Simon &Shuster	1939	x	x	x	x
Bishop, Claire Buchet	The Five Chinese Brothers	Coward McCann	1938	x	x	x	x
Bonsall, Crosby	Who's A Pest	Harper	1962	x	x		x
Bromhall, Winifred	Middle Matilda	Knopf	1961	x	x		x
Burton, Virginia Lee	Mike Mulligan and His Steam Shovel	Houghton Mifflin	1939	x	xx	x	x
Burton,	Kathy and The Big Snow	Houghton Mifflin	1943	x	x	x	x
Carmichael, William	Lee Fong and His Toy Junk	David McKay Co.	1955	x			x
Cleary, Beverly	The Real Hole	Morrow	1960	x	x		x
Credle, Ellis	Down Down the Mountain	Thos. Nelson and sons	1934	x	x	x	x
Dougherty, James	Andy and the Lion	Viking	1938	x	x	x	x
Duvoisin, Roger	Petunia and the Song	Knopf	1951	x	x		x
Duvoisin,	Veronica	Knopf	1961	x			x
Elkin, Benj.	Six Foolish Fishermen	Children'sPress	1957	x	x		
Fatio, Louise	The Happy Lion Roars	Whittlesey	1956	x		x	
Flack, Marjorie	Story about Ping	Viking	1933	x	x	x	x
Freeman, Don	Fly High, Fly Low	Viking	1957	x			x
Gag, Wanda	Millions of Cats	Coward-McCann	1928	x	x	x	x

Author	Title	Publisher	Year	Judges 1	2	3	4
Gag, Wanda	Snippy and Snappy	Coward McCann	1931	x		x	
Mader, Berta & Elmer	Pancho	Macmillan	1957	x	x		x
Gay, Zenya	Small One	Viking	1958	x	x		x
Gramatky, Hardie	Hercules	Putnam's Sons	1940	x		x	x
Hurd, Edith Thacher and Clement Hurd	Johnny Littlejohn	Lothrop, Lee & Shepard	1957	x	x		
Johnson, Margaret	Snowshoe Paws	Morrow	1949	x	x		
Kahl, Virginia	Maxie	Scribner's	1956	x			x
Keats, Ezra Jack	My Dog Is Lost	Crowell	1960	x	x	x	x
Matsuno, Masako	Taro and the Tofu	World	1962	x	x		x
McCloskey, Robert	Make Way for Ducklings	Viking	1941	x			x
McGinley, Phyllis	Horse Who Had His Picture In The Paper	Lippincott	1951	x		x	x
Newberry, Clara Turlay	Mittens	Harper	1936	x		x	x
Redman, Sylvia Berger	Do You Want to Hear a Secret	Lothrop, Lee & Shepard	1960		x		
Rey, H.A.	Curious George Gets A Medal	Houghton Mifflin	1957	x		x	x
Rey, H.A.	Curious George Rides A Bike		1952	x	x	x	x
Robinson, Tom	Buttons	Viking	1949	x	x		x
Rowand, Phyllis	George	Little Brown	1936	x		x	
Slobodkina, Zephyr	The Sale of the Turnip	Whittlesey	1961	x			x
Tresselt, Alvin	White Snow, Bright Snow	Lothrop, Lee & Shepard	1947	x			x
Udry, Janie May	Theodore's Parents	Lothrop, Lee & Shepard	1958	x	x		

Author	Title	Publisher	Year	Judges			
				1	2	3	4
Wiese, Kurt	The Rabbit's Revenge	Coward McCann	1940	x			x
Will and Nicholas	The Little Tiny Rooster	Harcourt	1960	x			x
" " "	The Two Reds	Harcourt	1950	x	x		x
Williams, Gweneira	Timid Timothy	Young Scott	1958	x		x	x
Yashima, Taro	Crow Boy	Viking	1955	x	x		x
Zion, Gene	Dear Garbage Man	Harper	1957	x	x	x	x
	LEVEL THREE						
Ayer, Jacqueline	The Paper Flower Tree	Harcourt Brace	1962	x	x	x	x
Bontemps, Arna and Conroy, Jack	Fast Sooner Hound	Houghton Mifflin	1942	x	x		x
Brown, M.W.	Night and Day	Harper	1942	x	x		x
Clark, Ann Nolan	Third Monkey	Viking	1956	x	x		
Clark, Margery	The Poppy Seed Cakes	Doubleday	1924	x	x	x	x
Fritz, Jean	How To Read A Rabbit	Coward	1959	x	x		
Garrett, Helen	Angelo, The Naughty One	Viking	1944	x		x	x
Kirn, Ann	Two Pesos for Catalina	Rand	1962	x	x		x
Lathrop, Dorothy	Presents for Lupe	Macmillan	1940	x			
Leaf, Munro	The Story of Ferdinand	Viking	1936	x		x	x
Martin, Patricia M.	The Rice Bowl Pet	Crowell	1962	x	x		x
Martin, "	The Little Brown Hen	Crowell	1960	x			x
McCloskey, Robert	One Morning in Maine	Viking	1952	x	x	x	

Author	Title	Publisher	Year	Judges			
				1	2	3	4
McGinley, Phyllis	The Horse Who Lived Upstairs	Lippincott	1944	x		x	x
Pender, Lydia	Barnaby and the Horses	Abelard	1961		x		x
Seuss	And To Think That I Saw It On Mulberry Street	Vanguard	1937	x	x	x	x
Shortall, Leonard	Sam's First Fish	Morrow	1962	x			x
Tresselt, Alvin	The Frog in the Well	Lothrop	1958	x	x		x
Tresselt,	Timothy Robins Climbs the Mountain	Lothrop, Lee & Shepard	1960	x		x	x
Ward, Lynd	The Biggest Bear	Houghton	1952	x	x	x	x
Zion, Gene	The Plant Sitter	Harper	1939	x		x	x

APPENDIX II

FINAL LIST OF FIFTY-THREE BOOKS USED IN EACH EXPERIMENTAL CLASSROOM

Sequence	Author	Title	Publisher	Year
2	Anderson, C.W.	The Crooked Colt	Macmillan	1936
3	Ayer, Jacqueline	The Paper Flower Tree	Harcourt Brace	1962
1	Beim, Jerrold	Smallest Boy in the Class	Morrow	1949
1	Beim, Jerrold	Andy and the School Bus	Morrow	1947
2	Bemelmans, Ludwig	Madeline	Simon & Shuster	1939
1	Bennett, Ramey	The Secret Hiding Place	World	1960
2	Bishop, Clare Huchet	The Five Chinese Brothers	Coward McCann	1938
2	Bonsall, Crosby	Who's A Pest	Harper	1962
1	Brown, Marcia	The Little Carousel	Scribner	1946
1	Brown, M.W.	Noisy Book	Scott	1939
1	Brown, Margaret Wise	The Dead Bird	Young Scott	1958
2	Burton, Virginia Lee	Kathy and the Big Show	Houghton Mifflin	1945
2	Burton, Virginia Lee	Mike Mulligan and His Steam Shovel	Houghton Mifflin	1939
2	Carmichael, William	Lee Fong and His Toy Junk	David McKay Company	1955
3	Clark, Ann Nolan	Third Monkey	Viking	1936
3	Clark, Margery	The Poppy Seed Cakes	Doubleday	1924

Sequence	Author	Title	Publisher	Year
2	Credle, Ellis	Down Down the Mountain	Thomas Nelson & Sons	1934
2	Dougherty, James	Andy and the Lion	Viking	1938
1	Duvoisin, Roger	The Miller, His Son and Their Donkey	Whittlesey	1962
2	Elkin, Benjamin	Six Foolish Fishermen	Children's Press	1957
1	Fatio, Louise	The Happy Lion	Whittlesey	1954
1	Flack, Marjorie	Angus and the Ducks	Doubleday	1931
2	Flack, Marjorie	Story About Ping	Viking	1933
2	Gag, Wanda	Millions of Cats	Coward McCann	1928
2	Hader, Berta & Elmer	Pancho	Macmillan	1957
1	Il. by Galdone	The Hare and the Tortoise	Whittlesey	1962
3	Garrett, Helen	Angelo, The Naughty One	Viking	1944
1	Guilfoile, Elizabeth	Nobody Listens to Andrew	Follett	1957
1	Kay, H.	One Mitten Lewis	Lothrop	1955
2	Keats, Ezra Jack	My Dog Is Lost	Crowell	1960
1	Keats, Ezra Jack	The Snowy Day	Viking	1962
1	Krasilovsky, Phyllis	Scaredy Cat	Macmillan	1959
1	Krauss, Ruth	Growing Story	Harper	1947
3	Leaf, Munro	The Story of Ferdinand	Viking	1936

Sequence	Author	Title	Publisher	Year
1	Lionni, Leo	Little Blue and Little Yellow	McDowell, Obolensky	1959
3	Martin, Patricia M.	The Rice Bowl Pet	Crowell	1962
2	McCloskey, Robert	Make Way for Ducklings	Viking	1941
1	Parish, Peggy	Good Hunting, Little Indian	Scott	1962
3	McGinley, Phyllis	The Horse Who Lived Upstairs	Lippincott	1944
1	Rey, H.A.	Curious George	Houghton Mifflin	1941
2	Rey, H.A.	Curious George Rides a Bike	Houghton Mifflin	1952
2	Robinson, Tom	Buttons	Viking	1949
1	Slobodkina, Esphyr	Caps for Sale	Scott	1947
1	Tresselt, Alvin	Hi, Mister Robin	Lothrop, Lee & Shepard	1950
3	Tresselt, Alvin	Timothy Robins Climbs the Mountain	Lothrop, Lee & Shepard	1960
2	Udry, Janie May	Theodore's Parents	Lothrop, Lee & Shepard	1958
3	Ward, Lynd	The Biggest Bear	Houghton Mifflin	1952
1	Will & Nicholas	Finders Keepers	Harcourt Brace	1951
2	Williams, Gweneira	Timid Timothy	Young Scott	1958
2	Yashima, Taro	Crow Boy	Viking	1955
3	Zion, Gene	The Plant Sitter	Harper	1939

Sequence	Author	Title	Publisher	Year
1	Zion, Gene	Harry, The Dirty Dog	Harper	1956
1	Zion, Gene	No Roses for Harry	Harper	1958

MANUAL FOR TEACHERS TO ACCOMPANY A PROGRAM OF LITERATURE FOR YOUNG CHILDREN

You are being asked to participate in an experiment to prove that steady reading to children early in their school careers will affect their reading and vocabulary for the better. You will be given a group of fifty story books at three levels of difficulty, and asked to read at least one of these stories every day. Begin with any story on Level 1, which are the shortest and easiest stories, go on to Level 2 by November and select from Level 3 by February. Any book that has been read once may be read as often as you and/or the class want it read at any time after the introductory reading. Aside from the restriction of choosing from the levels at the times indicated, (which is meant only to introduce children gradually to stories of increasing length and complexity), you have complete freedom of choice in selecting the story for any day. We will ask you to cooperate in certain special respects if you agree to participate in the program, but none of these tasks is difficult nor particularly time-consuming.

1. Enjoy the Story!

We read to children primarily for their satisfaction and pleasure. Busy teachers are often reluctant to take time away from work for this kind of activity. For this experiment it happens to be important that the story-time shall be relaxed and enjoyable both for the teacher and the children. The children need not be made to feel that a story will be read to them as a reward for good behavior. Avoid cancelling the story time as a means of punishing the class for poor behavior. The atmosphere of enjoyment is very important for our purpose, which is to make books exciting enough to children so that they will be inspired to learn to read in order to continue getting this kind of satisfying experience for and by themselves.

2. Read for the Children's Pleasure

Children love musicalness and patterning. When they hear

Hundreds of cats
Thousands of cats
Millions and billions and trillions of cats

from Wanda Gag's Millions of Cats, or

Was it a sailor?

No..o..o

Was it a duck?

No..o..o

It was the cat of course

from Margaret Wise Brown's Noisy Book, they follow the pattern and soon begin to repeat it with you. Try to read patterned phrases so they come out smoothly, and space your pauses so that the rhythm is clearly a rhythm.

Children love "sound" words and "funny words." Don't be afraid to roar like a lion and toot like a boat whistle. Such dramatic touches give life to a story and make the more usual words stand out better. Even if you never intended being an actress, cluck like a hen if the story tells you to, and toss off the tongue-twisting, made-up words in children's books as though you use them every day. You and the children will have lots of fun if you can get yourself to read aloud without too much inhibition.

Children love suspense, mystery and surprise. The mood of a story read aloud is dependent on the reading techniques. If the hero is in danger, let your voice tremble with his fear. If the hero is baffled, you sound baffled as you read. If there is rascality brewing, let your voice hold some of the excitement of forbidden thrills. The speed or slowness with which you read a particular part, the way you show pleasure, anticipation or surprise, are all part of the enjoyment of the story. Even after children have heard a story many times, and know the end well, they still love to hear it read as though it is brand new, and pretend that no one knows what will happen next. With each story reading, enter this "Let's pretend" world as though the happenings in books do matter very much. With each reading, act as though this reading is the first one.

3. Make Sure the Children Understand the Sense of What is Being Read

While it is fun for children to hear rhythmic phrases and dramatic sounds, it is even more important that they know what the words and phrases mean. They cannot ever really enjoy books if they do not fully understand what they read or hear read. However, there is a difference between being too young to understand an idea or experience (e.g. romantic love, democratic process), and not understanding the meaning of a word which describes something one could understand if the word were familiar (e.g. feast, stag).

All the events and characters in the books offered to you can be understood by young children. But the books use "grown-up" words where these are best suited for the story. They do not talk down to children. The experiences in the stories are universal in the childhood of all classes and national groups. They can be understood if the words are known to the children. Children who have heard many stories know more "book words" than children who have not had this opportunity. It is therefore up to the grown-up who is reading to the children to notice whether the children do understand the words, and offer clarification if they do not. It is easy to assume that children know many words already familiar to adults, but this is not so. There are many studies that show that children do not understand a great many words they are called upon to read, even in the upper grades. According to the reading authority Edward Dolch, the hardest words for children to understand fall into four categories:

1. literary or poetic equivalents of words, such as abhor, bestow, bewilder, cease, feast
2. words from adult occupations and affairs, such as attorney, batten, ambassador
3. words that may be familiar to children of one locality, such as arroyo, bayberry, antlers, amidships
4. words which act as symbols for abstractions or generalizations, such as aspiring, circumstances, advantage.

As children in your class listen to a story, watch their eyes, their facial expressions, their laughter to see whether they are following you or not. They will not always ask what words mean, and they are willing to forego full understanding for the pleasure of getting some of the story. Once they realize that you want them to get full understanding, some of them will interrupt and ask for clarification, which will make your task simpler. But they may not do this for a long time, and perhaps not at all. As you read, ask yourself therefore, which words in the story are not usual in the everyday speech of little children, especially in the speech of your class, and let that be your cue to what must be explained. Every teacher of underprivileged children knows that these children have not seen or experienced many things that others of the same age who are more fortunate may have seen and experienced. The underprivileged children, as a result, do not know the words for many things and events expected of them at school. For example, every English speaking child knows the word table but not every English speaking child knows the word utensil, or funnel, and not every modern English speaking child knows such old-fashioned words as cupboard and bucket. Yet these and many other words like them appear in stories for children. Sometimes the illustration makes plain what is meant. Sometimes the teacher must stop to explain the meaning of a word or phrase that is essential to understanding the story because it is not made clear by the context alone.

Try to increase understanding of words and phrases by a variety of techniques. Follow the story with any one or more than one of the following that will be suitable for the story read:

1. Discussion
2. Questions
3. Illustration by children
4. Construction
5. Further research
6. Follow-up activities inspired by story, e.g. construction, letter-writing, crafts, puppets
7. Dramatization
8. Additional reading on the theme
9. Photographs and three dimensional artifacts
10. Explanation of words and references
11. Browsing among the books

Here are a few illustrations of possible follow-up activities for some of the books on the list. If these seem too difficult, make up your own.

Suggested Types of Accompanying Activities to Heighten Comprehension

(These are only examples and need not be followed precisely)

Angus and the Ducks   Marjorie Flack

Explanation: hedge, suspenders, Scotland

Discussion: Why didn't Angus just stay at home and not go looking for new things to see?

Does everybody like to find out about new things?

What were you curious about when you were very little?

Draw something you were curious about, and see if the teacher can tell you what it is.

Dramatization:

Let one child be Angus, and several children be ducks. Use pretend props, and act out the story with impromptu words. "What would Angus be saying if he could talk"

The Crooked Colt C.W. Anderson

Discussion: Do children know anyone who is handicapped? Crippled Deformed How might such a person feel Does a person have the same or different feelings inside himself than other persons if he is crippled

How does it feel to be different? Are there ways in which people are different? How? How does it make them feel Do such differences matter Which ones

How does your mother help you to feel good

Who takes care of you when you are sick

Artifact: Have teacher or children bring in crooked stick and straight one.

Photograph: A tree with straight trunk, and a tree with a crooked trunk.

Let children draw or cut a straight line, a crooked line.

Poppy Seed Cakes Margery Clark

Explanation and Illustration:

Feather-bed. Bring an old pillow and let children touch for softness and bounce; show them "down" and "feathers," helping them to differentiate between the two. (A mattress store that repairs and sterilizes pillows can be a help if you have no samples at home.) Pictures are a last resort--or refer to the soft fur under a kitten's neck (soft as "down"), and compare with the feathers on a chicken or turkey. Some of the children may get help on this from their mothers through live poultry markets or pillows from "the old country." If you show pictures of geese and the feathers are clear, point out that the down is the mass of tiny feathers under the throat, and show differences in size, firmness and scratchiness of feathers at different parts of the bird's body. If no artifacts are possible, bring absorbent cotton and pieces of construction paper to illustrate marked difference in texture, the one like down, the other like feathers. Bring in foam rubber as a modern substitute for down and feathers.

Poppy Seed: Bring some poppy seed in and let children see, feel and taste; bake or buy poppy seed cookies. (In the spring, at the Jewish holiday of Purim, Jewish bakeries sell special poppy seed cakes.) Let the children taste poppy-seed rolls, and look for them in the stores, where certain cellophane packaged rolls are covered with poppy seeds.

The Old Country: Some of the children have parents who were not born in the United States, or not born in New York City. Explain that the country where a person is born is a place with its own language and special ways: Puerto Rico, Italy, France. When people come to a new place where the language is different, they remember the place where they were born as "the old country." Ask the children where they were born. If born in the U.S.A., which would be the old country if they decided not to live in the United States when they were grown up. How many of their parents have an "old country," which is it, etc. The sense of sentiment and attachment for what was familiar and beloved and is no longer part of one's life ought to come out here. Differences in customs can be developed too, as differences that are interesting, but not better or worse.

Dramatization: With stick puppets of Andrewshek, the goose and the aunt, the children can act out episodes of the story.

Children can draw a picture of themselves wearing the kind of shoes they would like and a picture of Klenka wearing the kind she wanted.

Blueberries for Sal Robert McCloskey

Artifact: Bring in box of blueberries (in season in the fall) and allow the children to taste.

Illustration: Show drawings and pictures of how berries grow on bushes; let them know there is one spot where the berry is attached to the twig.

Discuss any picking of berries or fruit the children may have done, e.g. strawberries, raspberries, blackberries, currants, gooseberries. If possible show pictures of these berries if real samples cannot be made available.

Help children note color, texture, fragrance and taste of berries available to them.

Construction and Dramatization: Have children make a hill at least six inches high out of salt dough or construction paper. Let them draw and cut out a human mother and child, a mother bear and cub. Then let them dramatize the story in puppet style, a pair of children acting out the story together.

Salt-dough Recipe

1 cup flour
1/2 cup salt
1 tsp. alum
Add enough water and
mix to achieve firm,
but not sticky consistency.

APPENDIX IV

①

Title Snowy Day
Author Keats
Teacher__________ Class______ P. S._____

Circle date of reading

Oct. 1-2-5-6-7-8-9-13
14-15-16-19-20-21-22
23-26-27-28-29-30

Nov. 2-4-5-6-9-10-12
13-16-17-18-19-20-23
24-25-30

Dec. 1-2-3-4-7-8-9-10
11-14-15-16-17-18-21
22-23-24

Jan. 4-5-6-7-8-11-12
13-14-15-18-19-20-21
22-25-26-27-28-29

Feb. 1-2-3-4-5-8-9-10
11-15-16-17-18-19-23
24-25-26

Mar. 1-2-3-4-5-8-9-10
11-12-15-16-17-18-19
22-23-24-25-26-29-30
31

Apr. 1-2-5-6-7-8-9-12
13-14-15-26-27-28-29
30

May 3-4-5-6-7-10-11
12-13-14-17-18-19-20
21-24-25-26-27-28

June 1-2-3-4-7-8-9-10
11-14-15-16-17-18

Check type of activity

explanation of word

explanation of concept

discussion

dramatization

illustration by children

models or real items shown

pictures or photographs

activities inspired by story

APPENDIX V

Return to:

PROF. DOROTHY H. COHEN
Long Island University
Brooklyn, New York 11201

words

Name ____________________

Class ________ School ____________________

T. W. ________

Q. W. ________ № 726

APPENDIX VI

PREPARATION OF ROOM FOR FREE ASSOCIATION VOCABULARY TEST

Allow enough time for careful preparation

1. All exposed writing in the room must be covered or otherwise removed, e.g. charts, signs, blackboard, notices, exit and fire-drill signs, materials on the teacher's desk, books on display etc.

2. Remove all books and paper from the children's desks. (Be sure no written materials can be seen from inside the desk.)

3. Separate booklets bearing names of study children from blanks.

4. Distribute booklets to children so named. Distribute blanks to any other children present (e.g. children transferred in etc.)

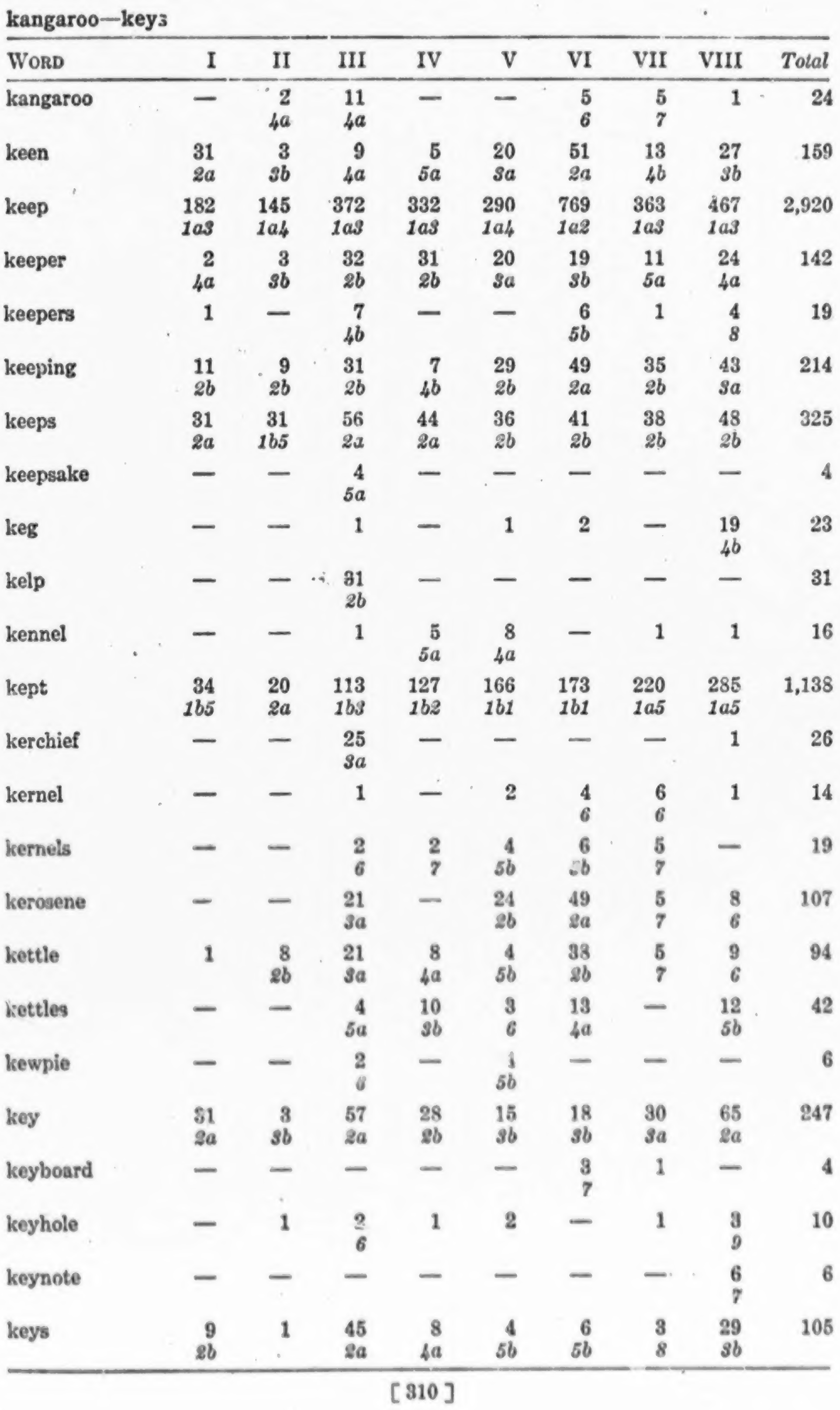
5. Have children fill in the spaces on their booklets for names, class and school.

6. Check your watch.

7. Start the test.

APPENDIX VII

SAMPLE PAGE FROM RINSLAND'S VOCABULARY STUDY



kangaroo—keys

WORD	I	II	III	IV	V	VI	VII	VIII	*Total*
kangaroo	—	2 *4a*	11 *4a*	—	—	5 *6*	5 *7*	1	24
keen	31 *2a*	3 *3b*	9 *4a*	5 *5a*	20 *3a*	51 *2a*	13 *4b*	27 *3b*	159
keep	182 *1a3*	145 *1a4*	372 *1a3*	332 *1a3*	290 *1a4*	769 *1a2*	363 *1a3*	467 *1a3*	2,920
keeper	2 *4a*	3 *3b*	32 *2b*	31 *2b*	20 *3a*	19 *3b*	11 *5a*	24 *4a*	142
keepers	1	—	7 *4b*	—	—	6 *5b*	1	4 *8*	19
keeping	11 *2b*	9 *2b*	31 *2b*	7 *4b*	29 *2b*	49 *2a*	35 *2b*	43 *3a*	214
keeps	31 *2a*	31 *1b5*	56 *2a*	44 *2a*	36 *2b*	41 *2b*	38 *2b*	48 *2b*	325
keepsake	—	—	4 *5a*	—	—	—	—	—	4
keg	—	—	1	—	1	2	—	19 *4b*	23
kelp	—	—	31 *2b*	—	—	—	—	—	31
kennel	—	—	1	5 *5a*	8 *4a*	—	1	1	16
kept	34 *1b5*	20 *2a*	113 *1b3*	127 *1b2*	166 *1b1*	173 *1b1*	220 *1a5*	285 *1a5*	1,138
kerchief	—	—	25 *3a*	—	—	—	—	1	26
kernel	—	—	1	—	2	4 *6*	6 *6*	1	14
kernels	—	—	2 *6*	2 *7*	4 *5b*	6 *5b*	5 *7*	—	19
kerosene	—	—	21 *3a*	—	24 *2b*	49 *2a*	5 *7*	8 *6*	107
kettle	1	8 *2b*	21 *3a*	8 *4a*	4 *5b*	38 *2b*	5 *7*	9 *6*	94
kettles	—	—	4 *5a*	10 *3b*	3 *6*	13 *4a*	—	12 *5b*	42
kewpie	—	—	2 *6*	—	1 *5b*	—	—	—	6
key	31 *2a*	3 *3b*	57 *2a*	28 *2b*	15 *3b*	18 *3b*	30 *3a*	65 *2a*	247
keyboard	—	—	—	—	—	3 *7*	1	—	4
keyhole	—	1	2 *6*	1	2	—	1	3 *9*	10
keynote	—	—	—	—	—	—	—	6 *7*	6
keys	9 *2b*	1	45 *2a*	8 *4a*	4 *5b*	6 *5b*	3 *8*	29 *3b*	105

[310]